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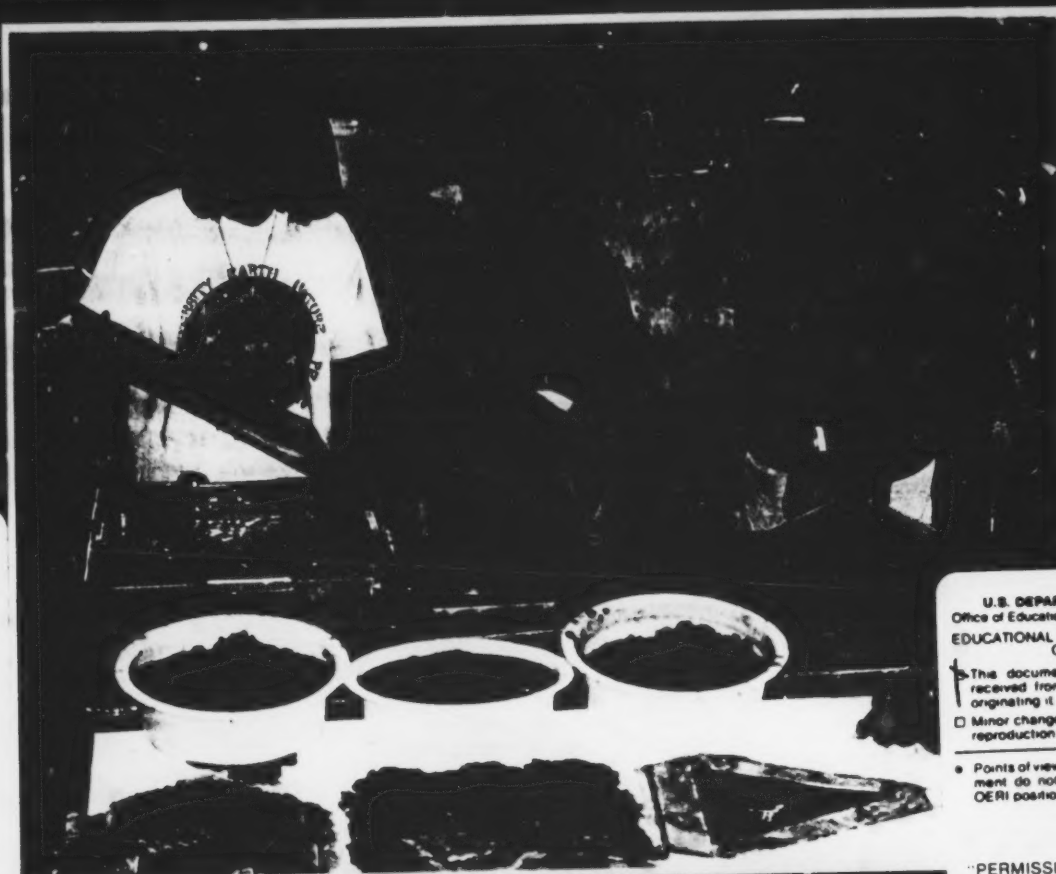
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ABSTRACT

This planning guide encourages reformation of the Wisconsin art education curriculum toward a less linear, sequential, and compartmentalized approach. The new program draws on recent knowledge of how students learn and how curricula components can be integrated. Focusing on themes and concept development, the guide supports independent thinking and problem solving, and favors experiential activities. Clear links between national standards, state goals, district curriculum, classroom instruction, and student assessment are established. The guide is divided into 12 sections: (1) Philosophy; (2) Curriculum Development; (3) Visual Learning; (4) Art and Society; (5) Design Art; (6) Studio Art; (7) Planning for Instruction; (8) Planning for Integration; (9) Incorporating Education Goals and Standards; (10) Planning for Assessment; (11) Aspects of an Effective Program; and (12) Appendixes, which include State Standards for Licensure, Art, Curriculum, and Instruction; the Wisconsin Administrative Code; the Family-Community Partnership in Schools Checklist; and Resources. (MM)

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A Guide to Curriculum Planning in Art Education

Martin Rayala
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Madison, Wisconsin

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Contents of the Guide

Foreword	vii
Acknowledgments	ix
Preface	xi
1 Philosophy	
Introduction	2
Content of Learning	2
Nature of Knowledge	4
Process of Learning	6
Contexts for Learning	8
Integration of Knowledge	10
References and Suggested Reading	12
2 Curriculum Development	
Introduction	14
Committee Organization	15
Curriculum Development Steps	16
Linking Curriculum and Instruction	22
Participatory Curriculum Development	23
Wisconsin Model for Visual Arts Education	23
References and Suggested Reading	27
3 Visual Learning	
Introduction	30
Goals for Visual Learning	31
Sketches and Drawings	33
Charts and Diagrams	34
Plans and Maps	34
Models of Space and Time	38
Visual Systems	39
Media Literacy	42
References and Suggested Reading	46
4 Art and Society	
Introduction	48
Goals for the Study of Art and Society	50
Popular Arts	52
Folk and Traditional Arts	56
Art of Other Traditions	60
Outsider Art	62
Artistic Expression	63
References and Suggested Reading	67

5	Design Arts	
	Introduction	70
	Goals for the Study of Design Arts	71
	The Built Environment	73
	Graphic Arts	80
	Product Design	82
	Media Arts	86
	References and Suggested Reading	90
6	Studio Arts	
	Introduction	92
	Goals for Artistic Development	92
	Elements and Principles of Design	95
	Content of Art	96
	Two-Dimensional Art Forms	97
	Three-Dimensional Art Forms	102
	Four-Dimensional Art Forms	106
	Reference and Suggested Reading	107
7	Planning for Instruction	
	From Curriculum and Instruction to Content and Learning	112
	Time Allocations	116
	Lifelong Learning	117
	Changing Role of Art Teachers	118
	Approaches to Instruction	118
	Planning Instruction for Special Populations	125
	Equity Considerations	127
	References and Suggested Reading	130
8	Planning for Integration	
	The Power of the Arts to Transform Education	134
	Integrating the Arts With Each Other	135
	Integrating the Arts Across the Curriculum	136
	Careers and the Visual Arts	144
	Technology and Art	145
	References and Suggested Reading	148
9	Incorporating Education Goals and Standards	
	Introduction	152
	National Education Goals	153
	National Standards in the Arts	154
	State Plan for Arts Education	154
	Wisconsin's Educational Goals and Learner Outcomes	159
	From Goals and Standards to Curriculum	164
	References and Suggested Reading	165
10	Planning for Assessment	
	Evaluation and Decision Making	168
	Approaches to Assessment	173
	References and Suggested Reading	179

11 Aspects of an Effective Program

Advocacy	182
Administrators and School Boards	182
Family-Community-School Partnerships	183
Teacher Preparation	185
Program Standards	188
Instructional Materials	191
Computers in the Art Program	193
Community Resources	194
References and Suggested Reading	194

12 Appendixes

A. Licensure—Standard (a)	198
B. Health, Physical Education, Art, and Music—Standard (j)	200
C. Curriculum—Standard (k)	202
D. Instruction—Standard (L)	205
E. PI 4.19, Wisconsin Administrative Code	209
F. Family-Community Partnership with the Schools	210
G. Resources	213

Foreword

Art education is essential to the basic education of all students. A *Guide to Curriculum Planning in Art Education* is part of the Department of Public Instruction's ongoing efforts to provide assistance and support to local school districts in developing comprehensive preK-12 art programs. This guide will help educators and other community members design effective programs that include art as an integral part of education. It also will enhance teacher preparation programs and inservice opportunities for teachers. The guide presents new concepts about the education of students in and through art and incorporates ideas and information from a variety of sources, including the National Standards for Education in the Arts, Wisconsin Learner Goals and Outcomes, and policies and guidelines of the National Art Education Association.

I know that this guide will contribute substantially to the improvement of education in Wisconsin and will be seen as a cutting-edge document. While not a mandated curriculum, the guide provides a valuable resource and reference to assure that Wisconsin continues its leadership in education and that ultimately we will become a state and nation of visually literate citizens.

John T. Benson
State Superintendent of Public Instruction

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A Guide to Curriculum Planning in Art Education would not have been possible without the efforts of many groups and individuals.

The Art Education Task Force members gave freely of their time and expertise in drafting the guide and building on the work of the task force that drafted the previous guide published in 1985. The employing agencies of all of these people were generous in granting them time to work on the publication. Task Force members were

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Preface

A Guide to Curriculum Planning in Art Education is addressed to the groups and individuals responsible for planning and providing effective visual arts instruction in elementary and secondary schools. The guide presents an instructional framework for art education to assist local district art education committees in curriculum development or revision. It can also be used as a resource for staff development programs, as a reference for teachers in lesson planning, and as a text for teacher preparation programs.

This is an expansion and revision of the guide that was developed in 1985 and does not change that publication's basic conceptual orientation. Both guides emphasize the need for arts curriculum and instruction to support students' exploration of large generalizations and concepts. Both guides emphasize a broad-based learning program that includes understanding the history of the various art forms, ability to analyze and interpret works of art, development of coherent theories or philosophies of art, and ability to produce works of art.

The current guide expands the scope of the first edition by including design arts, art and society, and visual learning, along with studio arts, in its discussion of art education content. It introduces more recent approaches to the curriculum development process, instruction, curriculum integration, and inclusion. It also emphasizes the importance of discovery in the process of learning about art so that students develop the ability to problem solve and create new forms and ideas in art.

The purposes of this guide are

- to establish a vision of art education as an essential component of basic education for all students.
- to facilitate effective and creative decision making by teachers to
 - integrate visual literacy, graphic representation, and aesthetic decision making across the curriculum;
 - develop people who can independently apply appropriate strategies to a variety of visual images and aesthetic tasks for constructing meaning; and
 - develop mature citizens who will choose visual communication, expression, and appreciation as an independent activity during and beyond their school years.

This guide presents a challenge to teachers, administrators, school boards, parents, and community members to create together a new environment in which students freely express themselves through the arts without interdictions or fear of reproof from peers or adults. It presents a blend of current research in art education and teacher effectiveness. It also provides specific suggestions to help teachers take an increasingly active, positive role by

- spending more classroom time teaching students how to communicate important ideas visually;
- encouraging students to continually expand their storehouse of visual images as an aid to comprehension and invention;
- teaching students to use the organizing features of visual images as an aid to comprehension;
- providing guided practice and appropriate materials for developing independence in using visual images to communicate ideas and express themselves;
- modeling and encouraging students to monitor their own aesthetic development and artistic understanding;

- modeling the enjoyment of visual arts and providing time for expression and appreciation through the arts; and
- using visual imagery as a learning tool for understanding the world.

While some of the ideas and concepts in this guide are already part of art instruction in schools, other concepts are new and will require local educators to supplement the necessarily brief segments with additional reading and study before attempting to incorporate the ideas into their programs. It is hoped that this will result in more teachers and students enjoying visual arts and valuing visual literacy as an important component of intelligence.

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Introduction

This curriculum planning guide is designed to encourage school districts to develop curriculum that functions as a vehicle for reforming the educational process. Districts are encouraged to develop curricula not overly constricted by linear, sequential, or lockstep course content. Educators must work together to create a less compartmentalized educational system that focuses on the overall interconnectedness of the disciplines. This curriculum development process will draw on knowledge of how students learn and how the components of curricula can be integrated. Attention should focus on themes and concept development rather than learning isolated facts and skills. The curriculum should support independent thinking and problem solving rather than memorization, favor experiential activities over passive learning, and establish clear links between national standards, state goals, district curriculum, classroom instruction, and student assessment. The following concepts play important roles in this guide's approach to education.

Content of Learning

Too often one thinks of art as something that certain people "do" and that those people have some kind of talent that makes them especially suited to "doing" art. This idea keeps one from realizing that art education includes identifiable content that can be learned and that the content of art education is as important to successfully negotiating the complex global community as are mathematics, language, science, and social studies. The content of visual arts education includes visual literacy, aesthetic decision making, and the various disciplines of the visual arts.

Visual Literacy

One of the purposes of art education is to increase students' ability to think and communicate visually. On many occasions, information and ideas can be communicated more quickly, clearly, and effectively through visual images than through other modes of communication. Road signs and international symbols, for example, often rely on visual images to communicate messages that would take too long to read and be more confusing if expressed in words. A drawing, painting, or photograph can, in great detail and clarity, communicate information that would otherwise remain cumbersome and vague using words alone.

Linguistic thinking and communication are powerful tools that have helped shape human evolution, but education focuses too heavily on language acquisition at the expense of learning how to see and communicate visually. Curriculum is often dominated by verbal chauvinism. As a result, many critical problems cannot be addressed adequately because many of the best thinkers are limited in their ability to use visual images to think and communicate ideas. Chapter 3 discusses the role of visual learning in more detail.

Aesthetic Decision Making

Another major purpose of art education is to help students develop their ability to make important aesthetic choices. Many economic decisions, for example, have an aesthetic component that should not be overlooked. Real estate developers can increase short-term and long-term profits by making wise aesthetic choices in housing projects. The auto industry's introduction of new automobiles every year depends on carefully researched changes in styling that try to capture the public's aesthetic imagination. Wisconsin towns, such as Cambridge, Minocqua, and Mineral Point, owe much of their economic livelihood to the tourism prompted by the arts and the aesthetics of their environment. Wisconsin's tourism industry relies on the aesthetic quality of the state's environment and the aesthetic choices made in transportation, urban growth, and environmental protection. Attendance at arts events in Wisconsin far outranks the combined attendance at games of the Milwaukee Brewers, Milwaukee Bucks, and the Green Bay Packers (Prieve, 1987). Wisconsin's Main Street Program recognizes the importance of urban design issues as one of the key factors, along with organization, promotion, and economic restructuring, in controlling urban sprawl and saving the downtown areas of cities in the state. Local chambers of commerce rely on images of aesthetic environments, well-designed attractions, and the availability of the arts to promote their towns.

When people have had little education in aesthetic decision making, they can be easily influenced by those who have highly developed skills of visual persuasion. For many, a high quality of life is characterized by the television show *Lifestyles of the Rich and Famous*. Given the means, many people would make aesthetic choices based on aesthetic principles of society that include "bigger is better," "more is better," "too much is not enough," and "if you've got it, flaunt it." In art education, students have the opportunity to explore these and other options and to make their own aesthetic decisions without being coerced or overly influenced by peer pressure, commercial advertising, public opinion, or the educational institution itself.

Content Learning

The curriculum should help students develop real-life knowledge and skills drawn from experiences of practitioners in the arts. The curriculum should help students understand, know, and practice what is done by actual artists, art historians, art critics, aestheticians, conservators, curators, and so on. In this way, students will have a more accurate representation of the subject matter that includes the terminology, methodologies, and philosophical foundations of the discipline. In addition, by keeping in touch with the real world of the arts, the curriculum can adapt to changes taking place and provide the best practices currently recognized in the various fields. Museums and museum education programs, for example, have changed a great deal in recent years, and those changes should be reflected in the curriculum. The design fields have changed drastically due to the introduction of computer-aided design, and those changes in the world of design should be reflected in art education programs.



Nature of Knowledge

Educators are realizing that knowledge is constructed by individual learners based on their own unique set of intelligences and that intelligence is not one thing, but that there are many forms of intelligence.

Constructing Knowledge

The approach to learning in this guide is based on the simple idea that people construct their own knowledge of the world in which they live. Learning is a natural, self-regulated process of constructing understanding by resolving conflicts in one's mind that arise from personal experience, talking with others, and reflecting on life. Teachers do not just pass on information and ideas to students, because learning results from personally experiencing the rich texture of life with a questioning mind. Students internalize new information and transform it.



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Learning how to help students develop deeper understanding is a challenging departure from standard ways of teaching. Pursuing questions is a quality that needs to be valued over adhering to the curriculum. Programs should favor presenting overall concepts rather than learning narrow skills. Primary sources of information and personal experience should be preferred over textbooks and workbooks. And interactive, collaborative learning experiences should be favored over lectures in which information is disseminated. Students are active thinkers with ideas of their own rather than receptacles for knowledge.

This constructivist view is more in line with Jean Piaget's developmental theories than with B.F. Skinner's behavioral theories of psychology. It encourages student initiative and autonomy; uses interactive, manipulative materials that provide primary experiences; promotes predicting, classifying, analyzing, and creating; and engages students in dialogue in which their views can influence the direction of study.

Multiple Intelligences

Multiple intelligences is the theory that everyone is capable of developing many semi-autonomous ways of knowing the world. In *Frames of Mind*, Howard Gardner of Harvard's Project Zero identifies seven forms of intelligence and argues that schools recognize too narrow a range of intelligences and thereby devalue the diversity of abilities and interests commonly found in student populations. Schools tend to overemphasize linguistic and logical-mathematical forms of intelligence while undervaluing interpersonal, musical, spatial, intrapersonal, and bodily-kinesthetic intelligences.

An educational program based on multiple intelligences theory should provide conditions through which students can use their particular talents or intelligences to develop their own unique individuality. People's brains are at least as different as their physical appearance, so educators should not expect the results of learning to be the same. Variance, diversity,

heterogeneity, and creativity are the watchwords for multiple intelligence learning rather than the traditional goals of uniformity, standardization, and convergence. A second characteristic of an educational program based on multiple intelligences theory is acceptance and encouragement of non-verbal, nonlinear, and nonscientific modes of intelligence.

Students interested in making art may exhibit preferences for spatial, bodily-kinesthetic, and intrapersonal modes of thinking. Students with strong spatial intelligence may understand best through mental or physical images, such as drawings, maps, charts, and diagrams. They can get physical pleasure out of seeing or making interesting images. Students with strong bodily-kinesthetic intelligence may prefer to work with their hands and process information by touching, moving, and interacting with objects. They can get pleasure from the feel of materials being shaped in their hands. Students with strong intrapersonal intelligence may prefer to work reflectively by themselves as they pursue their own interests. They get pleasure from focusing inward on their imaginations and working on individualized projects.

Students interested in art history, criticism, or aesthetics may exhibit preferences for linguistic, logical-mathematical, and interpersonal learning. Students with strong linguistic intelligence may prefer to read and write about art history, artists, artworks, and their origins. Students with strong logical-mathematical intelligence may prefer to engage in art criticism and aesthetics. They can get pleasure from analyzing works of art and trying to figure out their meaning. Students with strong interpersonal intelligence may prefer to be engaged in art museum and gallery activities. They can get pleasure from working with artists and patrons and helping people gain access to the arts. They may also be drawn to group process art forms, such as film making.

Students with strong musical intelligence may be interested in aesthetic discussions that compare and contrast music with the visual and performing arts. They can get pleasure from exploring the similarities and differences among the arts and use those ideas to strengthen their understanding of music and the arts.

Students and teachers should understand and support a variety of ways to represent knowledge and increase understanding.

Intrapersonal Intelligence

Intrapersonal intelligence is particularly significant to understanding many artists and works of art. The intrapersonal intelligence, one of the intelligences described by Gardner, relates to self-reflection, internal value systems, philosophical meditations, personal integrity, and creative intelligence. Because intrapersonal intelligence does not always manifest itself in external communication and is closely allied with personal issues, it is often not formally addressed in schools. While one needs to respect the personal rights, thoughts, and beliefs of every individual, students need to understand how important the quality and strength of their intrapersonal make-up is to the artistic process. While carefully avoiding any attempt to control what a student thinks or believes, students should know that their personal beliefs and integrity are essential components of true artistic expression.



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Process of Learning

Recent information about how the brain functions suggests that the process of learning should take into account the active involvement of the learner in his or her environment. Educators are coming to the understanding that students are not empty vessels into which the teacher pours knowledge, but that students must be an active part of the educational equation.

Student-Centered Learning

One of the precepts on which the curriculum development process should be built is the provision of educational opportunities based on the needs, interests, and aptitudes of individual students. Educators must work together to create an educational system tailored to develop the potential within each student rather than a one-size-fits-all system. Each class of students may have future artists, architects, industrial designers, art historians, movie critics, museum curators, medical illustrators, gallery owners, set designers, aestheticians, photographers, fashion designers, art teachers, magazine publishers, computer graphic artists, and craftspeople. And each class will have students who bring new perspectives and experience through their unique cultures, appearance, lifestyles, and outlook. The question educators must try to answer through the curriculum is how to help each of those students develop the knowledge, skills, and motivation to become the best he or she can be. A perception that the country needs more engineers, doctors, scientists, computer programmers, or whatever profession does not justify encouraging a future architect, for example, to ignore his or her unique capabilities and interests. And because a teacher may have an interest and background in printmaking, for example, it does not mean that all his or her students should focus on printmaking.

Active Learning

Educators should work together to develop ways of making learning as active as possible. Activity can be mental, verbal, or physical as long as the learner is personally engaged. Art teachers should not equate "learning by doing" and "hands-on learning" only with the studio approach to education. Some studio activities do not involve students as active learners, just as art history and art criticism learning can be very active. Active learning means that students do what is done by professionals in the arts disciplines. Students can create exhibits as part of learning art history, write newspaper articles as part of art criticism, conduct a debate as part of aesthetic inquiry, or conduct research before creating a work of art. All of these can involve active learning as long as the students are not simply going through the motions to satisfy some external requirement. Active learning helps students relate new content to previous knowledge and make connections between school experiences and their own worlds.

Developmental Appropriateness

Even though the process of education is ultimately designed to help students become productive citizens in a complex world, it is important to remember that they are not yet adults and that their learning experiences should be appropriate to their level of development. One of the most important things learned from art educators like Viktor Lowenfeld and Victor D'Amico is that children should not be rushed to imitate adult behaviors. Students should feel free to express themselves in their own terms. The creative spirit and a love of learning are precious gifts for educators to nurture and develop (London, 1989).

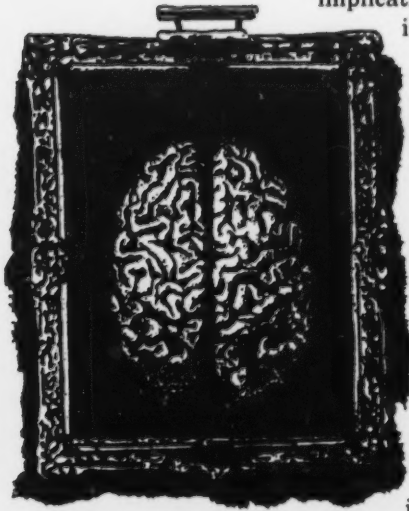
Creative teaching is not, however, just allowing students to work without guidance and support. Creative expression does not develop automatically but must be coaxed and celebrated in a safe and stimulating environment. A safe environment is one in which children's creative efforts are accepted and respected. A stimulating environment is one in which students work on meaningful activities in art production, criticism, aesthetics, and history. They should not focus on rote learning of elements and principles of art, skills, techniques, or facts in any of the disciplines of art.

Lowenfeld had a tremendous impact on the way art is taught in schools. His 1947 textbook, *Creative and Mental Growth* led teachers away from the practice of having students copy models to what he called "free creative expression," in which student art was judged by its own standards rather than by adult exemplars. Lowenfeld had intuited that the value of artwork is that it is a product of the needs and dispositions of the person making it. The important thing for children's art, therefore, is not to focus on how "correctly" it represents the world as adults see it but how it reflects the uniqueness of the individual.

An idea that has developed since the early child-centered art education theories became standard practice is that developmentally appropriate experiences exist for children at all levels in art history, art criticism, and aesthetics, as well as in art production. This is a possibility that Lowenfeld, D'Amico, and others did not imagine, because they felt that art production was the only proper art learning experience for children. While young children cannot be expected to think and talk about art at an adult level, they can learn to respond to the aesthetician's question, What is art? with more than, The stuff we do on Friday afternoon. Seeking answers to the question, Why? is as much a part of a child's curiosity about art as learning how to draw a horse. If students are not helped to develop mature ideas about art through their linguistic intelligence as well as their visual intelligence, about when they begin developing abstract thinking abilities in the middle-level years, 75 percent of them will put art aside for the rest of their lives, along with their favorite blanket, teddy bear, and other remembrances of childhood.

Brain-Based Learning

Magnetic Resonance Imaging (MRI) has provided new information about the brain and has spurred the development of new brain theories with implications for instructional theory and practice. Educators find it increasingly important to keep current with brain research and its implications for learning.



Interest in brain-based learning theories got a boost in the 1970s and 1980s when the left brain/right brain asymmetry research captured the popular imagination. Schools were seen to favor left brain capabilities of verbal proficiency and analytical thinking while largely ignoring the right hemisphere's spatial, holistic, parallel processing capabilities. Betty Edward's *Drawing on the Right Side of the Brain* is an example of an educational program derived from ideas of hemisphericity. Educational ideas like these, while useful, are best considered as metaphorical rather than as based in scientific fact.

Renate Nummela Caine and Geoffrey Caine, in *Making Connections: Teaching and the Human Brain*, challenge the belief that one can separate teaching into the cognitive, affective, and psychomotor domains described by psychologist Benjamin Bloom in his taxonomies of educational objectives. According to Caine and Caine, brain research indicates that educators may prohibit genuine understanding and transference of knowledge by requiring too much memorization and having objectives that are too narrow and specific. Curriculum development should take into account this new understanding about learning.

Contexts for Learning

In addition to the characteristics of the individual learner and the experiences each individual has, the context in which learning takes place is a determining factor in one's ability to learn.

Community of Learners

In a community of learners, every effort is made to develop a collegial working environment where teachers, students, and ideas are not isolated from each other and meaningful discourse is both the goal and the reward. Communities of learners, where growth and development occur for students and teachers, are characterized by high expectations, trust, inquiry, respect, recognition, honesty, communication, experimentation, caring, support, joint decision making, and focusing on what is important and valuable. Establishing habits of scholarship leads to lifelong learning.

Educators and parents should work together to make schools places where students and teachers want to be and where they enjoy the natural pleasure of learning. This may mean avoiding external rewards that undermine true scholarship in favor of the intrinsic rewards that come naturally from learning something about oneself and the world (Kohn, 1993). It requires educators to begin from the premise that people like to learn about things that matter to them.

Empowerment

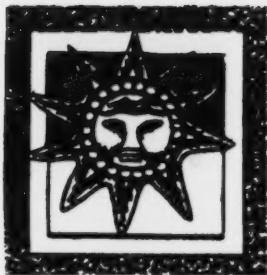
This guide encourages movement away from authoritarian forms of management to more cooperative forms of self-empowered learning. Many schools are now replacing hierarchical models that emphasize control, discipline, efficiency, expediency, and external rewards with models built on trust, self-discipline, quality, intrinsic rewards, and community. This guide favors curriculum models that emphasize the latter.

Some community members may raise concerns about changes in education that might have negative effects, including concerns that teaching "higher-order thinking skills" will limit teaching of the base of knowledge or basic facts students need to function in society. It is worth safeguarding against educational change that would result in students not being able to function in society. No one wants students to lack important knowledge, skills, and information needed to do well in the world beyond the classroom. Some worry that concepts such as "mastery learning" and "success for all students" will result in "dumbing down" the curriculum to allow all students to succeed. Educators agree that this would be undesirable. All educators must resist efforts to lower standards for any students. Some people worry that schools or the government will try to manipulate and change students' attitudes, beliefs, and values. Again, no one wants schools or the government to engage in any practices or to dictate any beliefs that erode family or personal values. But community members must also believe that educators have a responsibility to open and expand a student's world.

Educators should be among the first to fight to preserve personal freedoms. If any educational reform efforts prove to cause negative effects, such as lowering standards or undermining the values of the Constitution and Bill of Rights, all educators should take action to counter them. Many community members have strong opinions about the outcomes they expect from schools, and efforts to improve educational results should be considered carefully so that those expectations are not overlooked. Almost everyone would agree that, as an outcome of education, students should be mentally and morally equipped to challenge oppressive authority wherever it exists.

Quality Schools

William Glasser's book *The Quality School* outlines an attitude toward schooling that employs the management principles developed for industry by W. Edwards Deming. Glasser argues that educators need to replace the way they manage schools with a new method of management that focuses on quality. Effective teaching means getting *all* students to do high-quality work. Glasser maintains that students know as early as first grade when they are being coerced, whether it is done overtly or subtly, and begin to learn a pattern of active or passive resistance. The way to get them to do high-quality work is to avoid coercive techniques that turn students into adversaries and to instead use what Glasser refers to as *lead-management* in which the work in school satisfies the needs of the students. External motivation undermines education because genuine motivation comes from within. Students will only work hard when they believe there is quality in



what they are asked to do. Students will work harder and with higher quality if the work is meaningful, satisfying, and involving. Education programs can accomplish this by challenging students to think, question, and defend their ideas. Problems are not solved by coercion but by having all parties to the problem figure out a solution acceptable to all (Bonstingl, 1992).

Environments for Learning

Environments for Learning is an approach to preK-12 instruction developed by the Wisconsin Department of Public Instruction in which teachers, students, museum specialists, design professionals, and community members cooperatively use techniques of interactive museum design as a part of regular instruction in schools. Creating exhibits in schools provides opportunities to communicate ideas visually and to use hands-on approaches to learning and understanding.

Environments for Learning goes beyond the minimal requirements for space, lighting, acoustics, and so on in facilities design to consider the aesthetic and experiential potential of the visual environment. In this process students create permanent displays in the halls and classrooms that contribute to learning over time. These displays include timelines, maps, text panels, graphics, dioramas, displays, three-dimensional objects, and interactive exhibits that help students, teachers, and visitors to the school understand and interconnect the learning taking place in the building.

Teachers, students, and community members need to include issues of accessibility when creating exhibits and displays for schools. Are the displays wheelchair accessible? Can they be viewed from the level of a person in a wheelchair? Are there alternative ways to interact with the exhibits for those who are visually impaired? These and similar questions should be an integral part of the design of school exhibits.

Integration of Knowledge

Achieving balance is a difficult maneuver because there are seemingly competing forces, such as unity, diversity, specialization, and integration. An image of a pendulum is often used to characterize people's tendency to go too far in one direction and then over-correct by swinging too far in the other direction. This guide discusses ways to achieve a more balanced curriculum in the schools and how to preserve and foster diversity while striving for integration of knowledge.

Balance

Schools that provide little time or opportunity for studying the arts are not providing the balance necessary to accommodate the range of learning styles found among students and the necessary experiences for students' mental development. For many students, limited curricular options leave them with few chances to find a program of study that corresponds to their particular interests and aptitudes. The options consist primarily of lan-

guage arts, social studies, mathematics, science, and physical education, and students with interests and aptitudes that do not match the available curriculum are often perceived as poor learners. Students with interests and aptitudes in the arts often find that schools do not value their abilities and do not recognize the arts as valuable areas of inquiry. These students often feel they are second-class citizens in the educational community.

Educators should ensure balanced curriculum and instruction so that students can find opportunities to pursue those fields of knowledge that resonate with their particular aptitudes and interests. The magnet school programs in the arts, such as Racine's Fine Arts School, Milwaukee's Elm Creative Arts School, Roosevelt and Lincoln Middle Schools, and the High School of the Arts, are considered "specialty" schools because they focus on the arts. Their programs actually provide a balance of physical sciences, social sciences, arts and humanities. It is schools that do not provide a balanced program in these areas that might be considered specialty schools.

Japanese students receive a challenging education in technical and scientific disciplines, but they also have substantially more instruction in the arts than most American students. The Japanese system of education recognizes that a great deal of thinking is not just verbal or numerical but involves a variety of symbol systems. By including the arts, the Japanese develop the mental capacity and flexibility to create innovative systems, organizational structures, and patterns. The mental stimulation provided by the arts is as critical to Japanese education as mathematics and science. Much of the competitiveness in business and industry of the Japanese can be attributed to the inclusion of aesthetics and design conceptualization in the life and education of all Japanese people.

Schools should provide a balanced and integrated program of study that allows students to discover their areas of interest and ability and pursue them in depth and breadth. Students will find their interests are connected to other disciplines that previously held little interest for them. Students will learn the history, theory, and practice of their particular interests. They will be able to read and write about those areas at a higher level than other students, and they will understand how those areas connect with other areas and the world in general.

Diversity

Curriculum framework development must recognize, promote, and actively protect diversity among students, parents, teachers, communities, groups, nationalities, and so on. People are suspect of any attempts to force ideas, values, or attitudes on them. Parents do not want students to engage in learning activities that run counter to their family or religious values. Individuals must be allowed and encouraged to maintain their own values and beliefs without coercive pressure from peers, teachers, or others.

Students should, in fact, be taught how to protect themselves from the pressures of commercial advertising, peer pressure that runs counter to their personal beliefs, and institutional pressure that infringes on their personal rights and freedoms. The arts, in particular, should be a place where students learn to value and support diversity. Students must develop that most precious and elusive ability to develop strong personal convictions and beliefs, while not considering those beliefs to be superior to others.



Integration

Curriculum should support deeper understanding of complex phenomena and not cut off inquiry because "it's not part of the course." Making connections to other subject areas should be encouraged and students should use knowledge and skills appropriate to the task, regardless of what "discipline" they are from.

The idea of integrating learning goes back at least as far as the educational philosopher John Dewey and the Progressive Movement in education of the 1920s. Some of the advantages are that integrated learning

- more closely reflects the world outside of the classroom,
- has more relevance to students' lives,
- reduces duplication of instruction in different classes,
- provides a way to deal with constantly expanding content in the disciplines,
- takes pressure off the teacher to know everything,
- promotes focusing on higher-order thinking skills,
- helps focus instruction on what is essential,
- more closely reflects the way students learn,
- transcends the limitations of content and procedure of a single discipline,
- covers course content more thoroughly and effectively, and
- benefits all students as well as at-risk and gifted students.

References and Suggested Reading

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Introduction

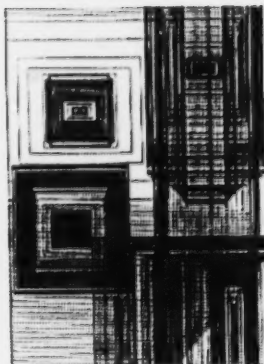
A *Guide to Curriculum Planning in Art Education* is designed to assist local school district staff members who share responsibility for developing and updating a comprehensive preK-12 art education program. This is an ongoing process of refining the program and adapting to new circumstances locally and in the world. The process generally includes some combination of group discussion, writing and rewriting, pilot testing and implementing new ideas, identifying and evaluating resources, and getting continuous feedback. It is an organic process that is never completed and responds to new ideas, needs, and opportunities as they arise.

An exemplary art education curriculum is one that strives to be as complete and coherent as possible while inviting possibilities for change and growth. This process is familiar to those in the arts because it is also the model for the artistic process.

Standard (k)

Standard (k) of the *Wisconsin Educational Standards* (Wisconsin DPI, 1991) spells out what is required by law of local school districts in the area of curriculum. The full text is provided in appendix C.

According to PI 8.01(2)(k), Wis. Adm. Code, each district is required to adopt and implement a curriculum plan in art that "shall specify objectives, course sequence, course content, resources, an objective process of determining whether pupils attain the specified objectives, and an allocation of instructional time by week, semester and school term. . . . Each sequential curriculum plan shall include a program evaluation method which provides that components of the sequential curriculum plan shall be monitored continuously. The overall program evaluation method shall be reviewed at least once every 5 years and revised as appropriate to ensure that pupils meet the curriculum objectives. . . . Environmental education objectives and activities shall be integrated into the kindergarten through 12 sequential curriculum plans, with the greatest emphasis in art, health, science and social studies education."



Standard (j)

Standard (j) of the *Wisconsin Educational Standards* states that each school board "shall ensure that instruction in elementary and high schools in health, physical education, art and music is provided by qualified teachers." PI 8.01(2)(j)3 requires that art instruction be "provided in accordance with a written comprehensive art curriculum which is based on concepts developed through sensory awareness, aesthetic discrimination and skill development in the creation of art and knowledge of human art heritage. Art instruction shall be provided for all pupils in grades kindergarten through 6 and shall be performed by or under the direction of a licensed art teacher. Art instruction shall be available to all pupils in grades 7 through 12 and shall be taught by a licensed art teacher."

School districts will find that by meeting standards (k) on curriculum, (L) on instruction, and (a) on licensure, they will also be in compliance with standard (j). All of these standards are included in the appendix.

Committee Organization

Perhaps as important as the existence of a district curriculum guide is the process by which it is developed. Purchasing or adopting a curriculum guide from an outside source is not usually a good idea unless the staff members become intimately acquainted with it through extensive inservice opportunities. The process of writing a local curriculum is part of the professional development for the staff, and in that process, the staff grapples with issues and ideas essential to instruction. For this reason, one needs to carefully consider who will be involved in the development of the local curriculum.

It may be more efficient to have one person, such as a curriculum director, develop the local art curriculum. But that process is not recommended because the staff members will have little ownership of the guide, making it difficult to actually use the guide as a basis for instruction. Educators should consider the following factors when setting up a curriculum committee:

- Include as many art staff members as are willing or able to participate.
- Include representatives from early childhood, elementary, middle, and secondary levels to ensure preK-12 articulation.
- Include an appropriate balance in regard to gender, race, and role, as well as students or parents of students with special needs.
- Ensure adequate representation of the viewpoints of art teachers, other teachers, administrators, parents, students, and the community.
- Include representatives from other subject areas and initiatives, such as School-to-Work, to promote a more integrated approach.
- Include representation of administration and the school board to promote districtwide understanding, acceptance, and support of the guide.
- Include representation of related staff members, such as special needs or gifted and talented coordinators.

Individuals can play many roles in the curriculum development process. The actual curriculum writing team may comprise seven or fewer people, but others can be involved. If representatives of the interest groups mentioned above are not involved in writing the guide, they may be included in a focus group to help determine the basic goals of the program or in the review process as drafts are developed. It is better to have their input throughout the development process than to have them opposed or indifferent to the curriculum later.

Characteristics of a good member of a curriculum writing team include a willingness to learn and work, open-mindedness, good interpersonal skills, a love of teaching, some computer skills, good verbal skills, successful experience in teaching and curriculum writing, the ability to think independently but participate as a team player, the ability to move between roles as a generalist and specialist, the time and energy for the project, and being in a position to actually use the guide.



Curriculum Development Steps



A first step for an art education curriculum committee is to review this guide, the local district's goals for education, the National Standards for Arts Education, Standard (k) of the Wisconsin School Standards, Wisconsin Learner Goals and Outcomes, currently available books and resources on art education, relevant material from the National Art Education Association, and related research in education and art education. The following questions will be helpful in examining these materials:

- What does recent research say about the teaching and learning of art?
- What are the characteristics of an artistically, visually, and aesthetically knowledgeable student?
- What is the teacher's role in developing artistic, visual, and aesthetic understanding?
- What habits of learning would help students become lifelong learners in the arts?
- What kinds of staff development are needed to help teachers assume the role of artistic, visual, and aesthetic decision makers?
- What opportunities, materials, and resources are essential for providing a wide variety of visual arts experiences?
- What evaluation procedures can be used to measure an art education curriculum in terms of present and future needs of students?

After reviewing available resources, the art specialists and the committee must develop a plan and timeline for completing the following tasks:

- Examine the existing program.
- Review present visual arts competencies of students.
- Identify goals of the art education curriculum.
- Select objectives for accomplishing goals.
- Choose materials to implement goals and objectives.
- Pilot test changes in proposed curriculum.
- Write a new curriculum.
- Present the new curriculum to district staff members and the board of education.
- Plan appropriate staff development activities.

Philosophy

Curriculum writing teams should begin with their district's general philosophy and goals for education, which can be obtained from the district administrator. Most districts will have some statement in their goals relating to aesthetic understanding or the arts, but curriculum developers in the arts should show how the arts can contribute to achieving *all* of the district's educational goals. In fact, despite the low status often given to the arts in schools, the arts can be shown to help students achieve more of the district's stated educational goals than many other areas of the curriculum. The curriculum team should spell out, step by step, how the arts contribute to achieving each educational goal. This information is not readily apparent to most individuals outside of the art education field.

The philosophic foundations of art education have grown over time, but most changes have expanded the role of art education rather than replacing earlier goals. Early art education was introduced as a form of manual skill with practical applications, such as drafting. Later, art education was recognized as a leading contributor to emotional development. Others identified its role in mental growth, and some promoted art education's role in developing creativity (Logan, 1955). The idea of *education through art* has an instrumentalist orientation that has been a component of art education for decades. Key players in shaping early art education include philosophers such as Herbert Read and John Dewey and psychologists such as Jean Piaget and Viktor Lowenfeld (Brown and Korzenik, 1993). Later cognitive psychologists such as Howard Gardner applied new ideas about mental growth to art education theory. Some influential art educators, such as June King McFee, added ideas from sociology and anthropology to the psychologically oriented art education theories. Other approaches to art education emphasize art as a body of knowledge and skills and use practitioners in the arts as sources for educational theory and practice. In the 1970s, the Getty Center for Education in the Arts began heavily promoting art education based on the disciplines of art production, art history, art criticism, and aesthetics (Dobbs, 1993). The last part of this chapter outlines a unified theory of art education that accounts for different, and often competing, philosophic approaches to art education. Individual teachers, schools, and districts will determine the focus and direction of their philosophic approach.

The two major roles of visual arts education are the development of visual abilities and the development of aesthetic abilities. Both sets of abilities have broad applications in and outside the field of art.

Commonly cited reasons for including the visual arts in school curricula fall into ten major categories:

Developing Visual-Spatial and Bodily-Kinesthetic Intelligences. Common terms include *visual problem solving, visual thinking, visual memory, visual imagination.*

Personal Growth. Common terms include *self-actualization, creativity, self-expression.*

Social Development. Terms such as *collaboration, respect, tolerance, citizenship.*

Developing Visual-Spatial, Aesthetic, and Bodily-Kinesthetic Perception. Common terms include *recognize, perceive, understand, notice, be aware of.*

Developing Visual-Spatial, Aesthetic, and Bodily-Kinesthetic Awareness. Sometimes referred to as *appreciation or valuing.*

Developing Visual-Spatial, Aesthetic, and Bodily-Kinesthetic Knowledge. Terms such as *knowing, understanding, visual literacy.*

Developing Visual-Spatial, Aesthetic, and Bodily-Kinesthetic Abilities. Terms such as *skills, abilities, do, produce, make, perform.*



Developing Visual-Spatial, Aesthetic, and Bodily-Kinesthetic Judgment. Terms such as *judge, analyze, evaluate, assess.*

Developing Visual-Spatial, Aesthetic, and Bodily-Kinesthetic Skills and Processes. Terms such as *communicate, express, investigate, inquire.*

Developing Visual-Spatial, Aesthetic, and Bodily-Kinesthetic Innovation. Terms such as *imagine, invent, create, discover.*

Curriculum writers will want to borrow from the literature of art education or develop language of their own that reflects all or some of the above reasons for including visual arts in the curriculum. The writings of Elliot Eisner (1976, 1978) of Stanford University are good sources for clear and persuasive arguments for the importance of arts education in school curricula.

Conceptual Curriculum

Wisconsin has a long tradition of conceptual curriculum development in art. In developing curriculum or designing lessons, teachers should ask, What is really important to learn here?; What are some of the major concepts students should take away from this experience?; and What can students bring to the experience? Curriculum and instruction should be designed to support development of those large ideas in the most direct and effective manner possible. Thinking conceptually helps teachers avoid trivializing the art curriculum with activities that are weakly justified by ideas such as they are fun, look cute, make nice gifts, or develop motor skills.

The conceptual approach begins with the formulation of statements or generalizations dealing with broad concerns, such as *communication, self-understanding, creativity, change, cultural heritage, interdependency, and aesthetic awareness.* A generalization might read, "Communication involves expression and reception of feelings, ideas, and information necessary for human interaction and understanding." Concepts are more specific aspects of a generalization that students can arrive at through classroom activities and personal discovery, rather than memorization of facts or direct instruction. A concept derived from the above generalization might read, "Art is one of the ways people communicate." Examples of other concepts include, "The creative process can be a source of self-discovery"; "Visual choices we make reflect the values of ourselves and our culture"; "Creativity requires courage, freedom, individualism, and openness"; "Concepts of art change from generation to generation"; and "Our society was created by people, and we can change it." Examples of conceptual statements and related classroom activities are given in chapters 3, 4, 5, and 6.

Curriculum Mapping

Curriculum mapping to determine what is actually being taught in the art program is a good first step in the curriculum development process. In curriculum mapping, teachers write down in some detail what is actually taught so that comparisons can be made between the curriculum plan and the taught curriculum. Then decisions can be made as to what to delete,

what to add, what to save, what to improve, and where to change emphasis. Teachers who feel they know what their curriculum consists of, without going through the trouble of mapping it, are often surprised by what the curriculum mapping process reveals about the structure of their teaching.

Curriculum Articulation

A curriculum writing team will want to give some consideration to the content and order (scope and sequence) of the art program, but curriculum articulation should be flexible enough to allow for learning to take place when it is most appropriate for the particular students. If events lead students to become interested in some aspect of the visual arts, they should not be dissuaded because "that will be covered next year." Curriculum planners must remember that many decisions pertaining to scope and sequence are made for pragmatic reasons that may or may not support effective learning. The curriculum plan, by design, should allow for the greatest flexibility possible.

Thematic instruction provides a greater degree of flexibility for students to follow their own line of inquiry without "getting ahead" or "falling behind" the curriculum plan. Since many schools across the state use a similar structure for their social studies curriculum, the following general themes may work with relatively few variations for most school districts. The following sequence is only meant to be descriptive of a possible art program. The topics may be introduced at different grades in some districts and can be adjusted accordingly.

Kindergarten: Social Living

Since the kindergarten curriculum in social studies focuses primarily on social living, those learning activities can be used to reinforce the art curriculum. Students will work on projects in both social studies and art that deal with self-image, respect for individual differences, awareness of family environment, exploration of home, family traditions, holiday traditions in their community and other lands. Students can learn through experience that artists sometimes work alone and sometimes work cooperatively with others. They can use art to find out more about themselves and their families. For instance, how do students draw themselves in terms of size and placement in a depiction of their family? Students should have experience in drawing their room. They should be introduced to self-portraits and images of individuals and families from around the world.

Grade 1: Family, School, and Neighborhood

In grade 1, the focus is usually on the family and its relationship to school and neighborhood. Learning activities in both social studies and art can focus on maps of the students' neighborhood, art in the business community, and other families. Students can draw pictures of their home and their families doing things in their community. Students begin to attend to concepts of scale and size in art. They can draw maps of their neighborhood showing features that are important to them. They can study people in their community who create art or have jobs relating to art. They can identify



works of art in their community. For instance, what is the largest work of art? What is the oldest work of art? What is the most valuable work of art?

Grade 2: Local Communities



Mary Bero, Self Portrait #3, 1985
Paint, stitching and collage, 5 5/8" x 5 3/4"
Collection of Madison Art Center
Purchase with funds from Janet Ela

In second grade, the focus is on local communities. Learning activities in both art and social studies can focus on maps, aesthetic decisions established by the community and local government, social and ethnic diversity, goods and services, shelter, clothing, the environment, and careers in art. Students can share examples of works of art from different cultures within their community. They can draw pictures of buildings and learn the different architectural styles of buildings in their community. Students can learn that there are community laws regulating design of buildings, roads, signs, yards, and other aesthetic concerns.

Grade 3: Communities Around the World

Third graders can combine social studies and art by focusing on art, architecture, and design from around the world. This might include studying the diversity of communities; art of regions such as Africa, Europe, Asia, and the Americas; the visual landscape, such as grasslands, rain forests, mountains, deserts, and plains; art and culture in urban, rural, developed, developing, traditional, and revolutionary societies; and the environment, heritage, ethnicity, technology, beliefs, shelter, recreation, and arts of different communities. Students can compare similarities and differences in the homes in their community with other communities and examine the role of climate, culture, aesthetic tastes, beliefs, and attitudes in the look of a community.

Grade 4: Wisconsin and the Region

Fourth graders traditionally focus on Wisconsin history. Students in art and social studies can focus on the visual culture and environment of Wisconsin; environmental awareness; Native American art; ethnic and folk arts of Wisconsin; architecture and art of Wisconsin; Wisconsin museums and galleries; public art in Wisconsin; and the tradition of wildlife art in Wisconsin. Some prominent Wisconsin artists include Harvey Littleton, Georgia O'Keeffe, Frank Lloyd Wright, John Nolen, and Brooks Stevens. Students can study the unique visual culture of Wisconsin and its sources. Students should be aware of the significance of Frank Lloyd Wright in Wisconsin and his prominence as a leading architect of the 20th century.

Grade 5: United States' Heritage

The fifth grade focus on the United States provides excellent opportunities to introduce students to U.S. artists; architecture; city design; maps as visual communication; Matthew Brady's photographs; Thomas Nast and the tradition of political cartooning; Currier and Ives and the golden age of U.S. illustration; Frederick Remington and the art of the West; U.S. folk and

ethnic art; Frederick Law Olmsted and the American landscape; design in the U.S.; U.S. art museums; John James Audubon and America's wildlife; Native American art; African-American art; and American artists from the 17th century to the present, such as Romare Bearden, Albert Bierstadt, Thomas Cole, Charles Demuth, Thomas Eakins, Winslow Homer, Edward Hopper, and James Inness.

Grade 6: World Cultures

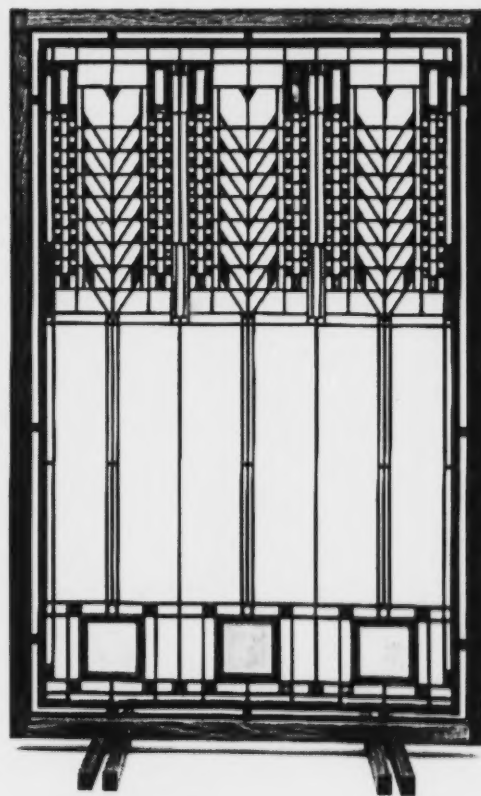
Grade 6 is a chance to go into more depth on art of world cultures. This brings up issues for the maturing student of multicultural aesthetics; environmental awareness; the meaning of culture; art of major civilizations of the world; art and cultural change; art of Asia, Africa, Oceania, and Australia; art and architecture of the Middle East; world art history; design in other cultures; and architecture around the world. Some types of art to consider at this grade include Egyptian, Greek, Roman, Medieval, Renaissance, Oriental, Mayan, Eastern Indian, Incan, and Native American. Students can study the similarities and differences among cultures of the world and how they came to be as they are. Students should be aware of issues in historic preservation, including some of the preservation projects in the state and nation.

Grade 7: Global Connections

Seventh graders focus on global connections in art, architecture, and design. This includes another look at environmental awareness; clothing, costume, and fashions from around the world; different shelter, architecture, and city design; cross-cultural aesthetics, studio art, and design. Students should begin reading and discussing issues in art and aesthetics from around the world that appear in the newspapers, magazines, and television. Artists considered at this level might include Claude Monet, Mare Chagall, Vincent Van Gogh, Pablo Picasso, Paul Gauguin, and Wassily Kandinsky. Styles of art that might be considered include impressionism, expressionism, modern, pop, surrealism, and abstract expressionism.

Grade 8: The United States

Eighth graders take another look at the United States. They examine multicultural art forms; art and photography from the Civil War; post Civil War art; the arts and crafts of the early United States; ethnic art in the U.S.; 20th century U.S. Art. They also consider issues such as who writes art history; U.S. art coming of age; the 21st century and the avante-garde in art; and the future of U.S. urban design. Some artists to consider in relation to U.S. history include John James Audubon, Winslow Homer, William Merrit



Frank Lloyd Wright, "Tree of Life" Window, designed 1904. Clear and stained glass, suspended in wood frame, 40 1/2" H, 26" W. Collection of the Elvehjem Museum of Art, Alta Gudsoos Fund purchase.

Chase, James McNeil Whistler, and John Singer Sargent. Styles of art to consider include U.S. artists who did work in modern, pop, op, surrealism, and action painting.

Grade 9: Ways of Thinking and Living

Because in sociology students look at what a sociologist does, they can compare and contrast this with the methods of inquiry used by an artist. They examine more mature issues such as what art is; freedom of expression in art; the role of the artist in society; a survey of studio art and design; a survey of crafts, folk art, and popular art; the challenges of one's visual environment; careers in art; the effect of the arts on society and the environment; art in the news; the media arts; art, environment and the law; architecture and city planning; and reading and writing in and about art.

Grades 9-10: World Issues

Another focus for ninth and tenth graders is world art issues. Students take a closer look at world art history and examine the art of ancient Egypt; early Greece and Rome; Medieval and Renaissance periods of Western Europe; Africa; Asia; Latin America; the Middle East; and Australia and the South Pacific. They also look at topics such as industrialism and art; and art and the future.

Grades 10-11: Studying the Past of the United States

In grades 10 and 11, students look at U.S. art from the 18th century to the present. They discuss ideas such as what is art history, what is an art historian, what is an art critic, and what is an aesthetician? They learn about early U.S. arts, crafts, architecture, and design. They learn about frontier artists and the art of the Civil War period. They study the development of photography in the U.S., images about World Wars I and II, and the development of art in the U.S. since 1945. They study historic preservation in relation to art and architecture.

Grades 11-12: The United States Today

In grades 11 and 12, students look more closely at modern U.S. art. They get a deeper understanding of the nature and practice of art history, art criticism, and aesthetics. They learn in more depth about American art, architecture, and design. They study the growth and influence of design in U.S. and look at film and television as visual media. Students examine issues relating to art and politics and look at art in the news.

Linking Curriculum and Instruction

Sometimes a disparity exists between the *written curriculum* and the *taught curriculum*. Having curriculum developed at the district level should make the curriculum more meaningful to teachers and minimize the degree to which it sits on the shelf and does not contribute to the improvement of

instruction. Educators should make a key effort in developing curriculum to link the mission and goals of the district, the mission and goals of the art program, curriculum planning, instructional improvement, assessment planning, and the resource needs for a program so that all of the components are aligned to support each other in a coherent, articulated system. Chapter 7 discusses some considerations when planning for instruction.

Participatory Curriculum Development

An alternative approach to curriculum development that has been shown to have beneficial results is to include students in the development of their own curriculum plan for the year. In this model, teachers spend the first few days working with students to determine questions the students have and directions for curriculum planning that their interests suggest. The teachers and students then develop a curriculum plan for the year built on these ideas. Research has shown that student learning and involvement during the year is at a much higher level, although students may not cover all the topics on some standardized tests normally administered for their grade level. A district or community would have to determine whether it feels that covering standardized textbook material is more important than efforts to develop a community of lifelong learners.

Wisconsin Model for Visual Arts Education

Visual arts is a broad category that includes the traditional studio arts such as painting, drawing, printmaking, and sculpture; communication and design arts such as film, television, graphics, and product design; architecture and design arts such as urban, interior, and landscape design; folk arts, and works of art such as ceramics, fibers, jewelry, works in wood, paper, and other materials. These can be used as topics of studio classes, but they can also be used as topics for the study of analysis and the study of historical and cultural attributes.

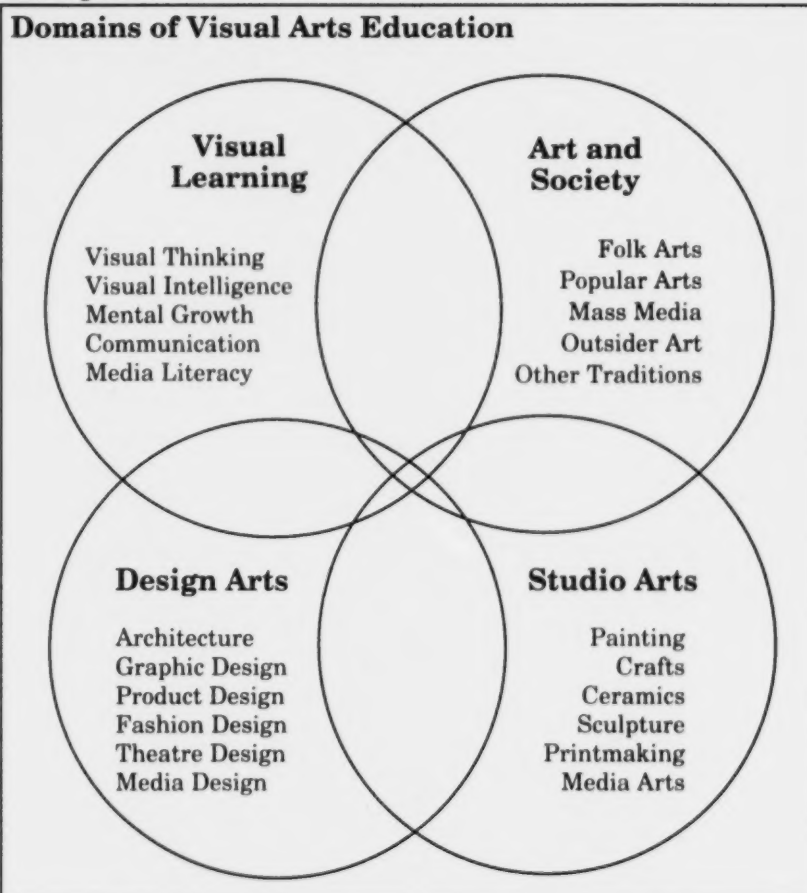
The Wisconsin Model, developed by the Department of Public Instruction, identifies four major domains of visual arts in a comprehensive art education program: (1) visual learning, (2) art and society, (3) design arts, and (4) studio arts, as illustrated in figure 1.

Like many terms, the ones selected to label these four domains are not hard and fixed. Many objects and events will share characteristics of more than one category. While one may quibble over definitions and debate their appropriateness, people generally know what these terms mean. One may prefer a different term or no label at all, but people have used these terms to communicate perceived differences within the arts.

In the Wisconsin Model, the motivations, procedures, techniques, and basic purposes are recognized as overlapping but sometimes different for the studio arts, design arts, art and society, and visual learning. For



Figure 1



example, in the *studio arts*, students learn the subtractive color system in which the primary colors are red, yellow, and blue and the secondary colors are orange, green, and violet. In the *design arts*, students learn a variation on the subtractive color system in which the four-color printing process separates colors into cyan, magenta, yellow, and black (C,M,Y,K). Students also learn that their computer's RGB (Red, Green, and Blue) monitor and television sets use an *additive* color system in which the primary colors are red, *green*, and blue and the secondaries are yellow, magenta, and cyan. Red and green combine to make yellow in the additive system. In *art and society*, students compare and contrast the symbolic uses of color in world cultures. In the United States, death is symbolized by black, but in some other cultures the appropriate color is white. One Wisconsin school found that a mural in which students used complementary colors to depict the U.S. flag brought heated disapproval from the local VFW. Color has very powerful social and cultural significance. In the area of *visual learning*, students learn that people's eyes are sensitive to the visible spectrum of wavelengths between 380 and 760 nm (nanometers) with 400 nm being indigo, 500 nm cyan, 600 nm yellow, and 700 nm red. Below 400 nm are ultraviolet,

gamma, and X rays, which people cannot see, and above 800 nm are radio waves and infrared, which people also cannot see. All of these approaches to understanding color are part of a comprehensive visual art education but require slightly different orientations.

Discovery

The Wisconsin Model varies from the national standards, discussed in chapter 9, and the Getty Discipline Based Art Education (DBAE), discussed in chapter 7, in its emphasis on discovery as a separate component in each area. In the Wisconsin Model, the content of instruction in visual learning, art and society, design arts, and studio arts is drawn from: (1) processes of discovery used in the creation of new ideas and forms by artists and designers; (2) production processes and abilities in art and design; (3) study of the evolution of art and design by historians; (4) analysis and interpretation of art and design by critics; and (5) reflection on the broader meaning of art and design by philosophers. These are subject or discipline-based categories. *Discovery* separates the development of new ideas and forms in art from the development of skills and processes of production. A sculptor, for example, might create a maquette for a work of art (discovery), but technicians might produce the actual work (production). The producer, to be sure, is very creative in solving problems in the fabrication of a work of art, but the nature of the tasks of conception and production can be quite distinct. In other art forms this distinction is even clearer. In music, composers use different skills and perform different tasks than those who perform the work. Writers or directors use different skills and processes than actors. The skills of a choreographer are different from those of a dancer.

Art and Society

Art and society is an important component of the Wisconsin Model because it includes awareness of visual forms encountered in society and how they are alike or different from the visual forms of other societies. This includes elements such as the folk arts, popular arts, media literacy, and works from the variety of cultures within the United States that are often not considered to be part of the studio or design art traditions. Underlying the study of art and society is the assumption that art can lead to acceptance, respect, and appreciation of differences in others, whether those differences are personal, cultural, or otherwise.

Visual Learning

Including visual learning in the Wisconsin Model emphasizes that some knowledge and skills developed in art classes have applications in a variety of human endeavors beyond the arts. Visual learning draws on understanding mental growth and development of visual perception and aesthetic reasoning, and study of the social implications of visual communication and aesthetic decision making. These are child-centered or learner-centered approaches rather than subject-centered.



While developing a basic understanding of each of the domains of studio arts, design arts, art and society, and visual learning, students choose areas for additional study. In each of the domains, students can explore discovery, production, history, criticism, and philosophy. For instance, in visual learning, students also explore the psychology of visual thinking. In art and society, students can focus on the sociological, cultural, and multicultural aspects of visual communication.

With so many areas in studio arts, design arts, art and society, and visual learning, students have many options to engage in visual-spatial communication in art education. An individual student, beyond a basic introduction, would not be expected to study all areas but would study those that match his or her interests and abilities. It is unlikely, and not recommended, that all of these offerings would exist as separate classes at the K-12 level. It is more likely that students within a visual arts class would be provided opportunities to approach the domains of either art, design, art and society, or visual learning through a variety of approaches. Different students in the same class could be involved in inventing new forms of art or design, producing art or designs, studying the history of art or design, or engaged in the study of philosophy, psychology, sociology, or anthropology of visual and aesthetic communication.

Production and Application

Most art teachers were trained in college or university art departments where studio production was the accepted mode of learning. People with backgrounds in sociology, cultural anthropology, psychology, art history, philosophy of art, or architecture and other design arts have different perceptions of the role of production in learning about art.

Everyone agrees that learning by doing is an important process in education, but a variety of ways of "doing" exist in art education. Studio production is only one form of doing. Students can learn art history by doing art history. This means finding a work of art for which the history is unknown or not well documented and writing its history. Art criticism can be learned by doing art criticism. This means viewing a work of art and writing a description, analysis, and interpretation that helps others understand the work. Writing a piece of art criticism for the school or local newspaper is also a form of learning by doing.

Perhaps another word for production in these cases is "application." Applying knowledge and skills in art history, art criticism, and aesthetics to produce a piece of history, criticism, or aesthetics makes them forms of production in those fields. Other forms of production include putting together an art exhibit, creating an art publication, managing a gallery, purchasing a work of art for the school, documenting significant architecture in the area, and digging for cultural artifacts at an archaeological site. All of these are productive "hands on" activities.

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Children's Book Illustration
by Rochelle Robkin

3



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Introduction



In his book *Frames of Mind*, Howard Gardner lists spatial intelligence as one of seven major forms of intelligence. Gardner writes, "Central to spatial intelligence are the capacities to perceive the visual world accurately, to perform transformations and modifications upon one's initial perceptions, and to be able to recreate aspects of one's visual experience, even in the absence of relevant physical stimuli" (Gardner, 1983). Some intelligence tests use diagrams and figures as a way of determining intelligence. A typical example is a diagram or figure that the test-taker is asked to locate in a different orientation (upside down, for example) from a choice of four or five other similar figures. This type of intelligence test does not rely as heavily on verbal ability as most others.

In *Black Holes and Baby Universes*, the brilliant physicist Stephen Hawking wrote about the thought processes he used in his first book, *A Brief History of Time*, and said that "I don't care much for equations myself. ...Instead, I think in pictorial terms, and my aim in the book was to describe these mental images in words, with the help of familiar analogies and a few diagrams." Scientists often say that they think in images and solve many complex problems by forming a picture in their mind.

Neurologist Richard Restak, author of several books on the brain, says that vision "provides us with a more unified perception than any of the other senses." He maintains that "Vision is our most important and valued sense" (Restak, 1994). The development of visual-spatial intelligence is one of the goals of art education. The International Visual Literacy Association (IVLA) publishes *The Journal of Visual Literacy*, which covers topics such as the psychology of perception, the physiology of seeing and perceiving, visual communication, media studies, instructional technology, and other topics pertaining to the study of visual communication from a physical and aesthetic orientation. Rudolph Arnheim has been a leading writer and researcher in the area of visual learning with books on visual thinking, visual perception, and the psychology of art. Arnheim's work is a standard beginning for anyone interested in visual learning.

Visual learning, as used in the Wisconsin Model, also includes aspects of aesthetic decision making not typically associated with the arts. Aesthetic decision making takes into account aesthetic concerns and issues in daily life along with economic, philosophic, social, political, practical, environmental, and other factors. Choosing a path for a proposed freeway, for example, involves aesthetic factors as well as economic, social, political, and environmental concerns. Mathematicians presented with two possible solutions to a problem will often select the more "elegant" solution. Scientists will sometimes search for an unknown element because they feel it must exist to assure a "balance" or symmetry to a configuration. Together, visual-spatial intelligence and aesthetic decision making are referred to in this guide as "visual learning."

Robert McKim's 1972 book *Experiences in Visual Thinking* is still a good introduction to the role of visual imagery in learning and communication. He was one of the first to argue that traditional education too often ignores

visual avenues for learning. He illustrates how visual communication is often more suitable to student's needs than language and taps into other realms of thinking that are different and often more flexible than language thinking.

Because society places such a high priority on linguistic and mathematical intelligences (primarily reading, writing, and arithmetic), many people have little education in visual-spatial ways of knowing and communicating. They are hampered in their ability to solve certain problems or communicate certain ideas that require a visual component. Although 80 percent of one's information is obtained visually, art classes are one of the few places in the school curriculum where students have systematic opportunities to develop visual thinking skills. This guide advocates the role of visual-spatial-aesthetic modes of thought as essential forms of intelligence valuable in and out of the arts.

Goals for Visual Learning

Goals for visual learning include developing knowledge and understanding of the world through seeing and doing, increasing mental development by strengthening areas of the brain that process visual material, developing visual inquiry skills, learning to solve visual problems, developing visual judgment, and improving visual communication skills.

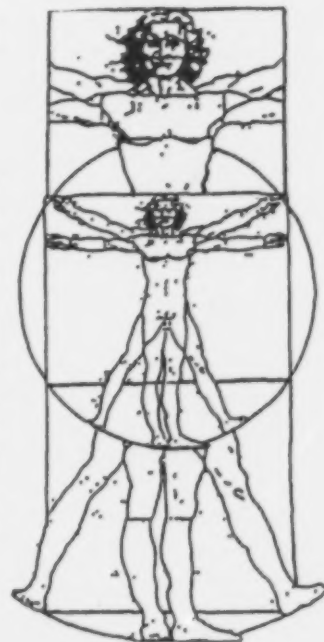
Knowledge and Understanding

Perceptual skills and visual techniques are important to developing students' understanding of the world around them. Since most people have the capacity for seeing, people often think that there is no need to learn how to see. But powers of observation and perception can be developed to enhance one's ability to know and understand.

Students should know and understand many things about their visual perception system, such as what color bees can see that people cannot. This is an example of knowledge relating to science that also relates to knowledge and understanding of visual learning. (Bees find flowers by using their ability to see ultraviolet light, which is invisible to the unaided human eye.) Other related questions might include, How do people see things in three dimensions?; How are one's eyes like camera lenses?; How are they different from cameras?; and What makes a rainbow?

Communication

One of the goals of visual learning is to develop the ability to use visual techniques for communication. Too many people cannot make simple drawings to describe visual events. Some people must rely on complicated verbal directions when drawing a simple map would be clearer and quicker. Since most people in the United States have not had an art class since sixth grade, they are generally very weak in their ability to communicate ideas and information visually, even when it would be the best way to do so.





Students need opportunities to develop their visual communication skills just as they need to develop their written communication skills.

Students must also be aware of the power of visual communication because it is being used effectively to influence people's choices in everything from smoking cigarettes, spending money, buying alcoholic beverages, and developing eating habits, to voting for political candidates. Visual communication, like any other form of communication, can be used for good or ill, but learning about visual communication can empower people to be responsible citizens and make them more effective consumers and communicators.

Mental Development

Research on the human brain has shown differences in where and how people process visual information as opposed to verbal or other forms of stimuli. Some concern has arisen that neglecting visual experiences in schools in favor of almost a complete domination by linguistic, scientific, and mathematical learning can cause visual abilities to be underdeveloped and hinder full use of people's mental capacities. Scientists, engineers, mathematicians, and others know that to do their best work, they often rely on their ability to process complex information visually. One of the goals of visual learning is to foster mental development in the areas of visual perception and visual thinking.

Inquiry

Another goal of visual learning is to develop students' abilities to learn, investigate, and discover new knowledge by using visual techniques. Margaret Mead, the famous anthropologist, used photographs and films to help her do her research about other cultures (Mead and MacGregor, 1951). This practice became known as visual anthropology. Artists were standard members of exploratory expeditions in the past. Their sketch journals and paintings provide valuable information about the land, animals, plants, people, and other features of previously unexplored territories.

Artists know that one of the best ways to learn about something is to make a drawing of it. In the drawing process one may see things that eluded the eyes before and clarify one's understanding of unfamiliar ideas, objects, or events.

Problem Solving

Visual problem solving is a key component of visual learning. Students should be provided opportunities to develop their visual problem-solving skills in a variety of contexts. Often solutions to difficult problems require one to "see them in a different light." Visual problem solving is an essential tool in science, mathematics, social studies, and the humanities, as well as the arts. Whether one is building a house, laying out a road, hanging a picture, or conducting advanced research in genetics, there are a great number of small and large problems to solve that require visualization.

Judgment

The ability to see clearly, accurately, and perceptively is critical to making sound visual judgments. People with strong visual skills seem to have a sixth sense, sometimes referred to as intuition, that gives them the ability to perceive subtle nuances of expression, movement, gesture, and other visual cues in order to make accurate judgments. Athletes, engineers, police officers, teachers, actors, photographers, naturalists, farmers, doctors, and many others make split-second decisions based on visual cues they have learned to read from their environment.

Students should have opportunities to develop their visual judgment and their general critical skills by using powers of perception and visual learning. They should have opportunities to develop their abilities to make sound judgments based on visual observation and personal experience.

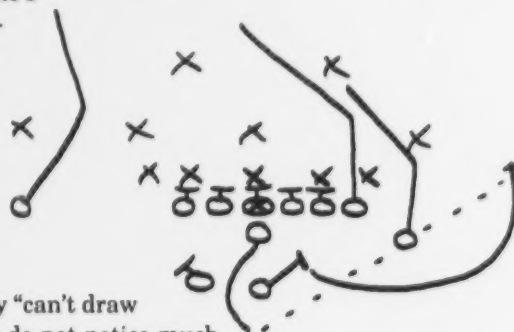
Systems

Students should learn to identify, use, and develop visual systems to help them understand the world and to communicate ideas and information. Understanding systems often requires the ability to form mental maps and construct visual metaphors. One of the goals of visual learning is to help students recognize and use visual systems to deal with complex systems of information and ideas. Maps, charts, diagrams, plans, and models are all examples of visual tools that help people understand complex systems. Students should know how to read and understand visual systems and how to create systems of their own.

Sketches and Drawings

Students should have opportunities to use sketches and drawings as a way to learn about the world and to communicate ideas and information. These drawings do not need to be aesthetic objects one would seek to make in the studio or design arts. They are simply tools for thinking. Thumbnail sketches and other drawings of this type strengthen one's powers of observation and are useful tools for communicating ideas. Developing the ability to make graphic or pictorial representations of ideas and information through sketching and drawing should be part of everyone's basic education. Most people stopped their experiences with pictorial representation at about the sixth grade, so they continue to perform at about the level of a sixth grader in drawing ability throughout their lives.

People are often not embarrassed to admit that they "can't draw a straight line," but few would like to think that they do not notice much about the world around them. Trying to draw some common object often shows that, more importantly than whether one can draw well or not, people often do not know as much about the world and are not as observant as they



thought. In an effort to make a quick sketch from memory of a parking meter, for example, it is clear that most people focus on the place where they put in the money and check for expiration but do not notice the large space below necessary to collect all the money inserted during the day. This area, in many cases the largest part of the meter, is often simply missing from an adult's drawings of a parking meter. Very often facts and ideas elude people because they lack well-developed skills of observation and visual memory.

One useful habit of many successful people is keeping a journal. The act of recording ideas and information in a personal journal on a regular basis strengthens observational skills, helps organize thoughts, and clarifies ideas for further exploration. Students should be provided opportunities to develop the habit of keeping a sketchbook/journal to record observations, ideas, thoughts, reactions, and questions. Sketches and drawings should be a standard part of any journaling process. Some sketchbooks have places for drawing on one part of the page and places for writing on another. Visual artists often prefer journals with unlined paper so that they can draw and write without restriction. It is often useful for students to see examples of sketchbooks people have kept and to see the journaling process modeled by teachers and others.

Charts and Diagrams

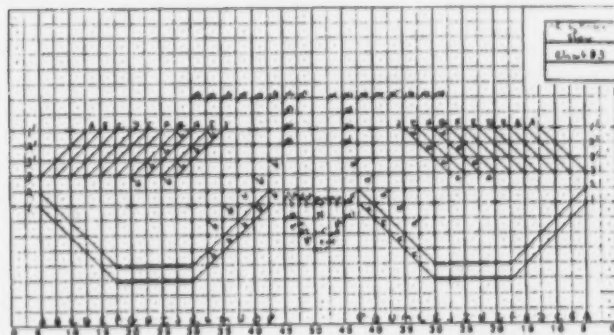
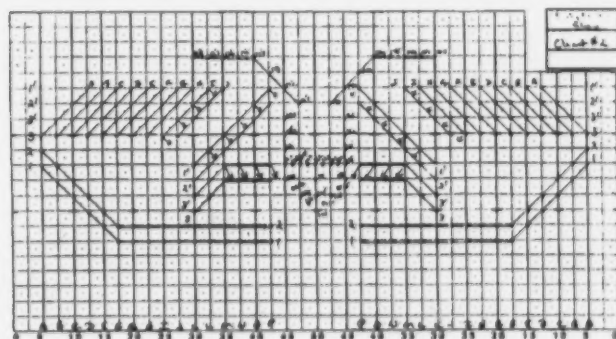
Students should have opportunities to learn how to use and create charts and diagrams to communicate information and to devise innovative ways to present ideas. They should be familiar with flow charts, bar charts, Venn diagrams, scattergrams, and a variety of other systems used to communicate information and ideas (Robertson, 1988). Students should be aware of the role of computers in the growth of visual representation of information. Students should have opportunities to see a wide variety of charts and diagrams, such as those used everyday in *USA Today* and each week in *Time* or *Newsweek*. They should also see more aesthetically designed charts and diagrams such as those used in annual reports of large corporations. Two of the best sources about visualizing information and ideas are Edward Tufte's books *Envisioning Information* and *The Visual Display of Quantitative Information*.

Plans and Maps

Plans and maps are ways of communicating spatial concepts in two-dimensional forms. Students should have experiences in reading and producing plans and maps of their homes, classrooms, schools, neighborhoods, communities, states, nations, continents, and world. They should be able to draw a plan of their home or school and read architects' plans and drawings.

Students should be aware of the varieties of maps and their strengths and weaknesses in communicating useful information accurately and interestingly. They should be aware of examples such as Buckminster Fuller's dymaxion map system as well as more familiar systems used in geography such as the Mercator projection, the Gall-Peters projection, and the Lambert Azimuthal equal-area projection. The National Geographic Society adopted the Robinson projection developed by University of Wisconsin cartographer Andrew H. Robinson for its world maps. Students should understand topography, contour, isotherms, legends, and other mapping concepts. Students should understand the field of cartography and some of the major people and events that have influenced the development of maps.

Instruction in visual learning is inherently driven by a framework of generalizations about such things as aesthetics, change, communications, and interdependence. These generalizations serve as the source of concepts that are experienced through activities in production, aesthetics, criticism, history, and discovery. The conceptual statements and consequent areas of study in figure 2 can serve to organize classroom instruction in visual learning.



Drill Formations
With permission of Michael Leckrone, director of the
University of Wisconsin Marching Band

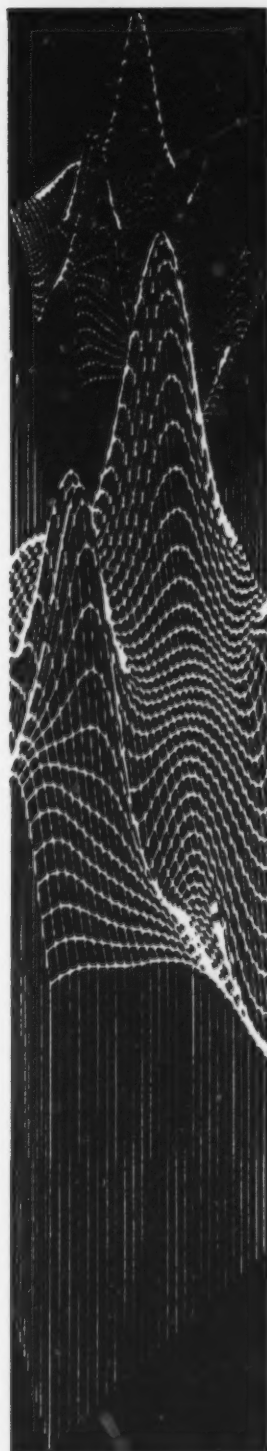
Figure 2

Sample Conceptual Statements for Visual Learning

	Primary Grades 1. Many ideas can be effectively communicated visually. 2. We can learn to visually communicate ideas more effectively.	Intermediate Grades 1. We can use visual techniques to solve problems and come up with new ideas. 2. We can learn to think and solve problems with drawings, charts, and diagrams.
<i>History</i>	Create a timeline or map that uses pictures, symbols, and words to show the sequence of events in history.	Create a display of maps and diagrams used in different parts of the world and from different periods of history.
<i>Aesthetics</i>	Show how maps and charts have changed over time and how those changes reflect the world view of their creator and the people of that time.	Look at a variety of maps and show how the mapmakers ideas and beliefs are represented in the map. (For example, is the mapmaker's own country shown in the most prominent position?)
<i>Criticism</i>	Find examples in which words are the most useful way to communicate an idea and other examples where the information is better communicated visually. Give your reasons for your ideas.	Compare a few maps of the same area or some charts showing similar information and give your reasons why some ways of presenting the information are better than others.
<i>Production</i>	Using a floor plan of the school, draw lines showing where you are throughout the day, indicating the time of the day you are in each place. On a floor plan of the school, show how each class should leave the building for a fire drill.	Draw a map of the route from your home to school and show some of the important features along the way.
<i>Discovery</i>	Make a few thumbnail sketches to show different ideas of how you would change the layout of your school. Describe how your ideas would improve the school.	Draw floor plans for a room in your home showing a variety of ways it could be changed. List the effects each of the changes would have on how the room looks and would be used.

Middle Level	High Schools	
1. Combining verbal and visual communication techniques can strengthen understanding and improve communication. 2. Many jobs and activities require strong visual thinking skills.	1. Visual thinking and communication have applications in science, mathematics, social studies, and a wide variety of other areas. 2. Solving many complex problems requires advanced visual thinking skills.	
Find or create different maps of your town that show when it was first settled, how it developed, and what it looks like today.	Create an exhibit that shows maps, charts, or diagrams created by a particular person or group.	<i>History</i>
What are some of the differences between a written description and a map or diagram? Use actual examples for comparison.	Compare and contrast the aesthetics of technology's effect on maps and charts. What is gained by using technology? What is lost?	<i>Aesthetics</i>
Find a few examples of a map or chart (like the periodic table of elements) created at different times and describe the differences and similarities.	Compare a book and a film made from it. Compare two movies made from the same book. What are the advantages of reading the book? What are the advantages of seeing the movie? How are they alike? How are they different?	<i>Criticism</i>
Find out how maps are made and create a map using some of the techniques used by cartographers.	Select some information or idea from your mathematics, science, social studies, or other class and make an exhibit that explains the information or idea using very few words.	<i>Production</i>
Think of ways in which maps can be changed or improved. For example, how could you make a three-dimensional map that shows water, land, and weather patterns?	Create an exhibit showing how you would like the world to look in the future. What would you like books to look like? Television? Cities? Homes? Transportation? Food? Clothing? Hair styles?	<i>Discovery</i>

Models of Space and Time



Models of space and time are three- and four-dimensional methods for understanding and communicating information and ideas. Students should be aware of how scientists and mathematicians construct models to help understand and communicate ideas and information relating to science and mathematics. One of the most famous recent models is the double-helix discovered by James Watson and Francis Crick in the 1950s. TV weather maps that show the movement of weather systems across the country are examples of models of space and time. A model that is still to be developed is the structure of a black hole in space. Whoever develops that model is likely to win a Nobel Prize. Students should know about a variety of models and have opportunities to construct their own models to communicate ideas they are learning across the curriculum. They should analyze their models to see how they could be improved to communicate more clearly or more richly.

Models of space and time involve an additional intelligence, what Gardner identifies as "bodily-kinesthetic intelligence," which relates to how a body occupies space and operates in it. This includes facility with using one's hands to make or form things. Sculptors, architects, craftspeople, model makers, potters, and jewelers use bodily-kinesthetic intelligence, as do engineers, carpenters, mechanics, and surgeons. This intelligence includes dexterity, coordination, and tactile sensitivity. School arts programs often have a two-dimensional bias. With many teachers' backgrounds being primarily in painting and drawing, sculpture and other three-dimensional activities are usually ignored. Students should have experiences in art classes to develop their bodily-kinesthetic intelligence by creating models to understand and represent ideas and information. Any hands-on activity or one in which students use tools requires some bodily-kinesthetic intelligence. Making structures out of blocks or Legos, forming with clay, using manipulatives in mathematics, setting up experiments in science, and creating physical models of any type are part of developing bodily-kinesthetic intelligence. The sensory involvement and tactile sensations can introduce aesthetic responses, but not all of the bodily-kinesthetic activities in art class need be artistic.

Many human endeavors involve learning by manipulation, observation, and movement. Dancers, for example, do not develop their skills from reading a book. Many trades and vocations, such as carpentry, machine work, mechanics, computer programming, and engineering, are learned primarily by seeing and doing rather than reading, writing, speaking, or listening. Schools should make an effort to validate all basic skills and allow students to develop those skills for which they have aptitudes and interests.

Thomas Armstrong's book *Multiple Intelligences in the Classroom* outlines a variety of ideas for including Gardner's seven intelligences in education. Armstrong suggests that schools should provide ample opportunities for students to draw pictures, charts, diagrams, and maps; touch things and build things; use videos, photographs, and films; and use blocks, Legos, clay, manipulatives, and models to enhance learning and understanding.

Visual Systems

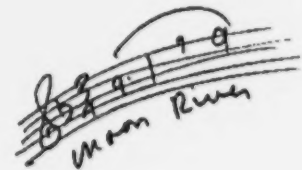
Of the major types of symbol systems—one's primary language, foreign languages, scientific notation, mathematical notation, musical notation, visual-spatial images, and gesture-movement—schools tend to focus on the first four. Visual-spatial images, or visual systems, are usually ignored.

Visual systems help people understand complex clusters of information and ideas, such as the circulatory system of the human body, transportation systems, weather patterns, communication systems, ecosystems, and population growth. The notebooks of Leonardo da Vinci have a wealth of examples of drawings and diagrams showing systems in the human body based on his dissections.

Cultures develop their own visual systems, and students should be aware of similarities and differences among visual systems used by Native Americans and in places such as Africa and Asia. Students should be aware of a variety of visual systems, such as alphabets from around the world, musical scores, dance notation, hieroglyphics, subway maps, wiring diagrams, Morse code, semaphore, and American Sign Language. They should have opportunities to use existing visual systems and to experiment with developing systems of their own.

Each of the types of symbol systems survives because it allows the transmission of certain ideas that cannot be achieved in quite the same way with other symbol systems. Educators are coming to understand that each of these symbol systems, and others, have significant value to individual students and important communication functions in varying contexts. Teachers should encourage students to develop and utilize the symbol systems they find most helpful in learning and communicating.

In figure 3, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study and instruction of visual systems and models of space and time.



*Sketch by Henry Mancini
With permission of the Wisconsin Alliance
of Artists and Craftspeople, Inc.*

Figure 3

Sample Conceptual Statements for Visual Learning

	Primary Grades	Intermediate Grades
	1. Making things is a way of thinking. 2. We can learn to think and create three-dimensionally.	1. Changing the shape and form of objects affects their use and the quality of their appearance. 2. We can learn to improve two- and three-dimensional forms so they are more useful and more pleasing to the eye.
	<i>History</i>	Create a display that shows how some objects we use everyday can look complex and others simple. Show how they have changed over time.
	<i>Aesthetics</i>	Compare an object that is very simple in its structure with one that is very complex. Why do they look the way they do?
	<i>Criticism</i>	Collect examples of objects we use everyday that work well and objects that do not. List reasons for this.
	<i>Production</i>	Take several small cardboard boxes apart to see how they were put together. Then make a box of your own design that folds up from a single sheet of stiff paper.
	<i>Discovery</i>	Create a structure out of paper that is simple, attractive, one-foot tall, and will support a one-pound weight.

Middle Level	High Schools	
1. The usefulness and appearance of designed objects are influenced by their form and function. 2. We can learn to improve the form and function of designed objects.	1. Understanding the structure and appearance of objects involves science, mathematics, social studies, and a wide variety of other areas. 2. Solving many complex problems requires knowledge and skills from a variety of areas.	
Make a display showing the history of the shape of a building, ship, airplane, bridge, or other large structure.	Create an exhibit that shows how knowledge in mathematics, science, social studies, and other areas influence the look and use of an object.	<i>History</i>
Talk about the saying "form follows function." Give examples that show this idea and others that don't.	Discuss the concept of organic structures. Give examples of built objects that are organic and others that are not. Give reasons.	<i>Aesthetics</i>
Find examples of objects that have design features that don't contribute to the function. Why are these elements there?	Find an example of a structural form that failed (like a bridge that fell down or a building destroyed in an earthquake) and discuss the social, historical, and aesthetic implications.	<i>Criticism</i>
Study a bridge like the Golden Gate in San Francisco and make a model of a suspension bridge.	Make a model out of cardboard or other material of a building, bridge, airplane, or other complex structure.	<i>Production</i>
Using as little material as possible, make a bridge out of lightweight material, such as cardboard or sticks, that can support a one-pound weight.	Discuss the word "structure" and how it is used in chemistry, physics, social studies, architecture, dance, business, and other areas.	<i>Discovery</i>

Media Literacy

When art teachers speak of media, they usually mean materials such as charcoal, paint, metal, and clay or processes such as lithography, photography, and acrylic painting. *Media literacy*, as used in this section, refers to understanding mass media such as movies and television. As part of visual arts education, students should have opportunities to understand and analyze mass media, such as books, television, movies, and electronic information. Mass media, exert powerful influences in people's lives, but most students have few opportunities to discover and analyze how media shape and reflect people's beliefs, thoughts, and attitudes.

While the little that is done in the area of media education usually occurs in English, social studies, and health education classes, many media forms are so highly visual that art teachers should also include analysis of the role of visual communication in people's lives. When art programs present the visual media, they need to teach students how to develop skills in recognizing and analyzing the role of visual images in shaping and reflecting society as well as how to produce media products. When media literacy is a topic as part of an English class or a social studies class, the focus is often on the narrative aspects or social impact of media. Art classes can also include those areas, but with a concentration on how media use *visual* techniques to communicate ideas and information. In *Films Deliver*, John Culkin pointed out that "We live in a total-information culture, which is being increasingly dominated by the image. Intelligent living within such an environment calls for developing habits of perception, analysis, judgment, and selectivity that are capable of processing the relentless input of visual data" (Schillaci, 1970).

Too often art teachers miss opportunities to expand students' understanding of the visual arts by failing to recognize the broader implications of visual literacy. Photography, film, video, and electronic media are areas that can become part of visual art programs if people recognize them as legitimate components of visual literacy. If art teachers feel they cannot fit these areas into the program because there is not enough time, the art staff is too small, or they have not been trained in these areas, it would be good to talk to colleagues in vocational education and English language arts to find out how they overcame these constraints and were able to add media to their programs. Including visual literacy is not so much a matter of additional time as it is about teaching the same things differently.

Including media in the study of visual literacy introduces topics such as lighting, framing, motion, and transitions from scene to scene. Students learn to produce works of art using visual technology such as film, videotape, lenses, color theory, lighting, and special effects. They learn history of the media by relating the effect of World War II and the Vietnam War on movies, the changing role of women and minorities in the film industry, and the development of international film industries in places such as Japan, Germany, and Eastern Europe. They learn about a variety of philosophies of filmmaking, such as formalism, realism, structuralism, feminism, and Marxism, and they learn to be critical viewers of films by applying their knowledge of film structure and meaning to interpretation of films (Costanzo, 1992).

David Considine and Gail Haley's book *Visual Messages: Integrating Imagery into Instruction* stresses that the media are so much a part of people's lives that a "...second culture in which Americans live, and increasingly the most influential culture, is a wired world that is mediated by the pervasive and persuasive vehicles of the communication revolution." Considine and Haley maintain that the world outside of schools can overpower the messages schools attempt to impart to students. "Essentially affecting the right hemisphere of the brain, this real world is mosaic, imagistic, fluid, impressionistic, and profoundly capable of influencing children's feelings as well as their thoughts" (Considine, 1992). Considine and Haley also place media literacy in the midst of the movement toward developing critical thinking skills. Developing critical viewing skills becomes an important aspect of critical thinking. They maintain that "If the critical thinking skills movement does not embrace its allies in media literacy and visual literacy, students will remain unable to think seriously about the impact of media on modern society and on their own lives."

Media Literacy, a resource guide from the Ontario Ministry of Education in Canada, includes key concepts to be addressed in media literacy education such as

1. All media are constructions.
2. The media construct reality.
3. Audiences negotiate meaning in media.
4. Media have commercial implications.
5. Media contain ideological and value messages.
6. Media have social and political implications.
7. Form and content are closely related in the media.
8. Each medium has a unique aesthetic form.

The Center for Media Literacy (see list of resources in appendix G) also produces a media literacy workshop kit called *Living in the Image Culture* and a variety of other useful resources.

In figure 4, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study and instruction of media literacy.

■ Figure 4

Sample Conceptual Statements for Visual Learning

	Primary Grades 1. Television uses special techniques to create different effects on the viewers. 2. We can learn to see how television techniques are being used to influence us.	Intermediate Grades 1. TV and movies include many messages that we may not notice at first. 2. We can learn to discover and understand how movies and TV use visual techniques to influence us.
<i>History</i>	Look at a rerun of an older television show and compare it to a current television show of the same type. How are they alike? How are they different?	Write a "history" of movies or television shows from the time you were born until today.
<i>Aesthetics</i>	What do older television programs show us about what people thought about clothing, hairstyles, buildings, transportation, and so forth, and what do current shows tell us about what we think looks good? How would you describe the differences?	Think of some movies or TV shows that are very different from each other. Describe what you think makes them so different, and why.
<i>Criticism</i>	Describe a TV show or a commercial that you think is good and explain why you think so. Compare your ideas with ideas of other people. What are their reasons for agreeing or disagreeing with you?	Look in newspapers or magazines to find what someone has written about a movie or TV show you have seen. Explain why you agree or disagree with what he or she wrote.
<i>Production</i>	Watch a television program closely to see if you can make a series of small drawings that show the different scenes in the show (a storyboard).	Make some small sketches to show different points of view of the same scene. How does it change the scene if you show it from a low or a high angle, if you make it darker or brighter, if you make it a close-up or further away?
<i>Discovery</i>	Tell how you would change the way something looks in a particular television show (clothing, buildings, furniture, and so forth) and explain what effect you think the change would have on the show. Why?	Pick an interesting scene around your school. Take a photograph or make a drawing of it in which you try to make people notice something or think something no one else thought of.

Middle Level	High Schools	
1. There are many different types of visual artists involved in making a movie. 2. The ideas in movies are enhanced by many factors, such as color, light, camera angle, movement, and scene design.	1. Media can have powerful negative or positive effects depending on the producers and the viewers. 2. Noticing, understanding, analyzing, and producing media requires advanced visual thinking skills.	
Find a list of Academy Award winners for the past five or ten years in categories such as cinematography, production design, lighting design, or special effects. Make a display that compares and contrasts the visual effects in movies over time.	Pick one of your favorite scenes from a movie and try to find out where the ideas for the scene came from. Is it like any other movies that came before it? Is it like any other artwork you can find? Does it use any special techniques that were not available before? Where did those techniques come from?	<i>History</i>
Talk about what "world view" means and see if you can discover movies or TV shows that present a particular world-view. How would someone else have done the film if they had a different world view?	Compare and contrast the aesthetics of technological visual systems. What is gained by using technology? What is lost?	<i>Aesthetics</i>
Listen to Siskel and Ebert, or find out what other critics think about a movie, and talk about their reasons for liking or not liking it. Make a list of the different reasons people have for liking or not liking a movie.	Compare a book and a film made from it. What are the advantages of reading the book? What are the advantages of seeing the movie? Compare two movies made from the same book. How are they alike? How are they different?	<i>Criticism</i>
Look at the credits for a movie with special effects and make a list of the different jobs artists do in movies (cinematographer, production designer, costume designer, animator, still photographer, lighting designer, and so forth). Learn about one of those jobs and produce a work of art like the work done by people in that job.	Make a video that shows innovative use of the media in meaningful ways to create a special mood or effect, or communicates an important idea.	<i>Production</i>
Take a scene from a film or TV show and show how you would do it differently and what effect your version would have on the viewer.	Develop a storyboard for a movie that shows ideas, attitudes, and images that people might have ten years from now. Do not just emphasize the science fiction aspects, but think about what you will be like and what your life will be like.	<i>Discovery</i>

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4



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Introduction



Naming art and society as an important component of the Wisconsin Model is an attempt to counter a more limited understanding of art. Too often people use the term "fine art" to refer to art of the Western European tradition. In defining four broad categories for the study of art in schools, the Wisconsin Model tries to recognize that art is not just one thing, but many things. *Art and society* is a loose term for the study of visual phenomena that are a pervasive part of everyday life of cultural groups within the United States and of other cultures of the world. These art forms have traditionally been excluded from the study of art because they may not fit neatly into rigid definitions of the studio or design arts. They are often of a practical or utilitarian nature, or of particular importance to women or ethnic and racial minorities. People interested in learning about these forms will find that information may be nonexistent, hard to find, or inaccurate. Quilting, for example, often is not commonly considered either a studio or a design art. Nonetheless, recent exhibitions on a number of continents show remarkably innovative and cutting-edge developments in this art form, and quilting can arguably meet criteria as a studio, design, or cultural art form. Other subjects for the study of art and society might include such diverse visual forms as comic books, science fiction illustrations, black-velvet painting, wildlife art, cartoons, television, duck decoys, woven baskets, whirli-gigs, masks, T-shirt designs, molas, and Disney characters. Those accustomed to a studio arts focus might say that some of these are simply not art.

Two major American works of art that provide good examples of the dichotomy between the traditional study of studio arts and the study of art and society are Mount Rushmore and the Statue of Liberty. While these works of art are of great importance, magnitude, and beauty, neither they nor their creators, Gutzon Borglum and Frederic Auguste Bartholdi, are likely to be found in many art history books. Their significance is regarded as more cultural than artistic.

Smokey Bear is another example of a popular culture icon that does not appear in art history books. Smokey Bear was created in 1944 by Albert Staehle, an artist for the U.S. Forest Service. Two years later Smokey was redesigned by artist Rudy Wendelin to make him more friendly. His claws were removed and his nose was shortened to make Smokey look less intimidating. Such cultural icons provide opportunities for students to practice art history, criticism, aesthetics, production, and discovery.

Students can try to find out the history of Smokey Bear and other icons such as Paul Bunyan and Babe the Blue Ox, the Rhinelander Hodag, the Mt. Horeb trolls, and others. When did they first appear? Who created them? Why do they look the way they do? Were there other variations of their design that were rejected?

Students can engage in critical inquiry by investigating how these characters have been redesigned over time to make them more attractive to people. Why does Mickey Mouse have round ears? Why did both Mickey Mouse and Smokey Bear have their noses shortened? How does Smokey Bear differ from the Hamm's Bear and Yogi Bear.

Students can do philosophical investigations by exploring whether or not such characters as Smokey Bear, Daffy Duck, the Road Runner, and so on are works of art? What are the implications of animals taking on human characteristics such as walking upright and talking? What do animals represent in our lives today? What aesthetic principles are we using when we make animals look more like people?

Students can use characters such as Smokey Bear and those created by Disney, Hanna and Barbera, Warner Brothers Studios, and others as sources for ideas about cartooning and animation. Students can explore the background paintings used in animation, the character development, and the breakdown of movements for animation purposes. Students can create flip books and short animated films using animation techniques.

Students can explore the work of other artists for clues to creating cartoons and animation. Animator Norman McLaren's films created for the National Film Board of Canada provide some of the best examples of an artist creating a wide variety of animation techniques. Students can be challenged to create other unique animation techniques they have not seen before.

When a school art program focuses primarily on the studio arts, it may be difficult or confusing to address some of these other visual forms with the same criteria. Teachers and students may feel that including such art forms trivializes the curriculum. Teachers may fear engendering misconceptions and misunderstanding.

Opponents to the study of art and society often cite two major objections. One is that these art forms are part of mass culture and, therefore, are not appropriate topics for serious scholarship. The other is that the methods of study often involve research, writing, and discussion, which are not the main mission of a studio based art program. However, programs should not ignore these important art forms. Many ways to address issues and ideas in art and society exist that meet rigorous learning standards and, most importantly, help students become better, more informed, and more tolerant citizens. In most cases the traditional studio approach is probably not an ideal approach to these topics. Integrative approaches, including art criticism, aesthetics, and art history, yield better student understanding. Teachers who have had some course work in sociology or anthropology and teachers interested in multicultural values are especially likely to appreciate the role of art and society as an appropriate part of a comprehensive art program. June King McFee's *Art, Culture, and Environment* is a standard source for inclusion of psychological, sociological, and anthropological ideas in art education, as is Vincent Lanier's *The Arts We See*.



Colorful cloth appliqué design called mola by Cuna Indian women from the San Blas Islands of Panama

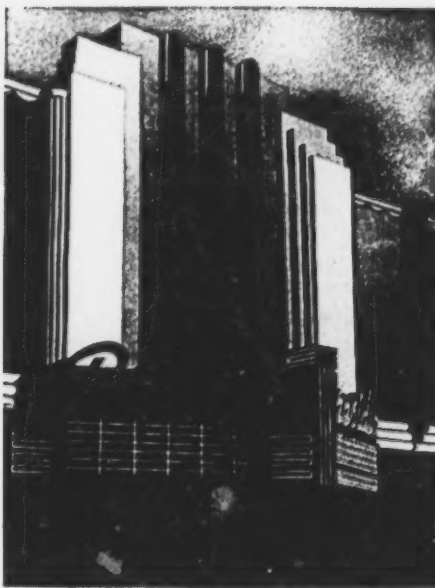
Goals for the Study of Art and Society

Valuable goals for the study of art and society include developing a sense of history, an awareness of one's own culture, an awareness of other cultures, an awareness of cultural transmission, media literacy, and knowledge and skills to create a future that works.

A Sense of History

Students find it difficult to see themselves as a part of the ongoing progress of history. They often think of history only as something that happened long ago. In the study of art and society, one goal is to have students understand that history is an ongoing process and that the accuracy and value of any historic record depends on the people who record it.

To help students understand history, they should have opportunities to write history. They can respond to questions such as, What is the oldest building or structure in town and what is its history?; What is the most beautiful place in the community and how did it get to be like that?; or When and where did the style of wearing baseball caps indoors (often backwards) and purposely putting tears and cuts in blue jeans develop, and how long will these remain as viable styles?



Frances Myers, *Presidio Palace*, 1979
Aquatint, 19 3/4" x 14 7/8"
Collection of Madison Art Center
Gift of Madison Print Club

Awareness of One's Own Culture

People often think that culture is something that other people have. It is often easier to characterize (or stereotype) familiar elements of Chinese, Navajo, or Nigerian cultures than it is to identify the diverse distinguishing characteristics of one's own culture. Being knowledgeable about a culture often means being able to recognize its rich diversity, contradictions, and infinitesimal detail. Being ignorant of a culture means one operates with fewer images, fewer

experiences, and, often, stereotypes.

Much of a culture's heritage is embodied and communicated visually. Students should have opportunities to examine and reflect on the nature of their own visual culture. Asking recent immigrants or visitors about their perceptions of U. S. culture is a good way to start. Through U. S. films, for example, some people from other countries believe that people from the United States are a violent people and that cowboys and Indians still roam the Western states. From watching American television, people from other countries may come to believe that it is not safe to walk anywhere in U. S. cities.

Awareness of Other Cultures

A readily accessible way to experience different cultures is through visual forms. One can see and examine visual forms of world cultures even without understanding their languages or traveling long distances. Often people from other cultures are one's neighbors. Students in Wisconsin's

rural, suburban, and inner city classrooms speak over 77 languages in addition to English (Uraneck, 1993). They have valuable information about Nepali, Yoruba, Vietnamese, Turkish, Serbo-Croatian, and Somalian cultures. Students and their parents can share perspectives, artifacts, holidays, and new ideas from Laos, Mexico, Tibet, and the Pacific Islands.

Students should be taught how to use books from the library, foreign films, and television as ways to "travel." Other resources include international college students and faculty, and cultural outreach centers.

Cultural Transmission

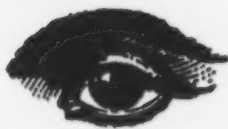
Students should understand how cultures are transmitted from one place to another and one generation to another. Students should be provided opportunities to learn that the world looks the way it does because people who lived before designed it that way and that people today can design the way the world will look in the future. Students often resign themselves to the feeling, "That's just the way it is." They should come to feel empowered to shape the future. Teachers and students can use "cultures" within the school to demonstrate cultural transmission. A classmate with physical handicaps can help students see the world differently and sensitize them to relationships between environment and design. What areas of the school are inaccessible to students in wheelchairs? What activities are difficult for these students to participate in? Students can redesign and rearrange spaces in the classroom, cafeteria, and playground to accommodate these differences.

Following through on design activities with actual proposals and presentations to the school board, city council, or an architectural firm will drive home the lesson that skills in the arts enable us to change the way we live. Students should constantly be challenged to design a future that works.

Media Literacy

Media literacy is the ability to access, analyze, evaluate, and produce communication in a variety of forms. Definitions of literacy must be expanded to include not only reading and writing print media but the electronic imaging capabilities of video, film, computers, and other technologies that characterize media images and messages in one's culture. A citizenry capable of critical thinking about media is necessary for the health of its economy, democracy, and culture. It is increasingly important that students become active critical viewers, users, and makers of both the media content and technology that surrounds them. Students should be aware of the power of media to manipulate viewers, listeners, readers, consumers, and the public. They should examine the social, cultural, economic, and aesthetic aspects of the media arts.

Students should not become experts at producing media simply to manipulate other people. The goals of media literacy include helping students develop critical viewing skills, visual literacy, and critical thinking about the way the media's use of images influences their attitudes and behavior in motion pictures, television, illustrated books, music videos, and the news. Some key concepts and questions in media literacy revolve

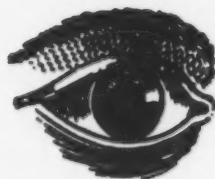


around the construction of messages in the media; the purposes of media in the economic marketplace; the effect of media on viewers; and the aesthetic formats, constructions, and conventions of media. The National Telemedia Council, based in Madison, Wisconsin and a leading promoter of media literacy for children through educators, parents, and media professionals, is a good source of information about media literacy (see resources listed in appendix G).



Designing a Future that Works

Few movies, books, or articles present a viable image of a future in which people would want to live. Most visions of the future depicted in literature and film are of dystopias rather than utopias. Many people have a sense of futility, imagining that there will be too many restrictions on their rights and freedoms and too much crowding, violence, pollution, and boredom. If people cannot even imagine how life on Earth could work, it will be difficult to construct that life.



Perhaps the most important task for art education programs in schools is to work across the curriculum to help students and teachers work together to imagine, design, and create a sustainable future for the people of the Earth, one that will provide a quality of existence all would like to achieve.

Popular Arts

The term "popular arts" and the following terms should not suggest hard and fast categories. They are a way to describe the range of material that educators should explore when designing an arts education program. *Popular arts* are often not recognized as part of the studio arts or the design arts, though they are forms common to mainstream culture. Illustrator Norman Rockwell, for example, was well-liked by a large segment of the American public, but his work is not considered "fine art." This is not a reflection of its quality but a reference to different expectations and criteria for studio art. Furthermore, Rockwell's popularity so transcended his role as a magazine illustrator that he won a place in the category of design arts and became an icon and part of the cultural consciousness.

The work of Walt Disney similarly eludes the boundaries of the traditional studio or design arts. Disney, in particular, exemplifies the impact of an individual aware of the potential of combining many fields. Animation, city design, urban engineering, architecture, child and human psychology, computer art, sociology, history, anthropology, and education are but a few disciplines he integrated to bring people the world of Disney.

Students should be introduced to systematic study of the popular arts because students are often unaware of how popular arts influence the way people think and act. Many, for example, do not think they are influenced by advertisements. The popular arts reflect and influence people's beliefs, attitudes, and desires. Without examining these powerful influences, people limit their capacity for self-awareness and social development.

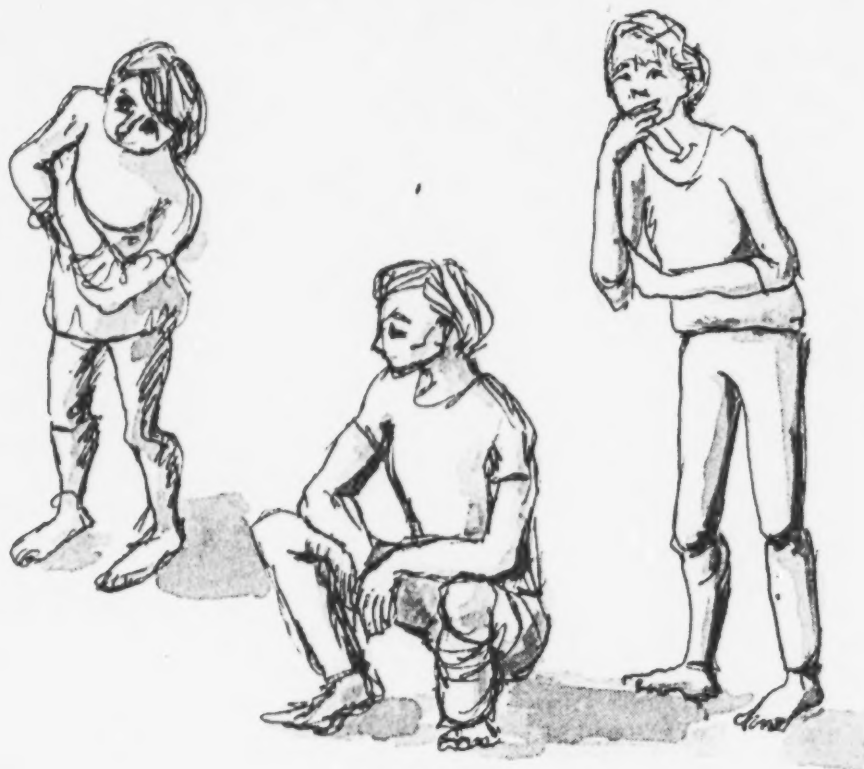
Mass Media

Mass media are dealt with in five places in this guide. The idea of mass media is introduced in chapter 3 on visual learning. Chapters 5 and 6 discuss media as vehicles for design communication and artistic expression. Chapter 8 includes media in a discussion of technology and art. Here media are addressed as part of mass communication and its impact on society.

Mass media are sometimes not addressed in art because they are so ubiquitous. If, as Ellen Dissanayake (1988) indicates, the arts are an effort to make things special, educators sometimes feel that mass media are too "common" or not special enough. There are, however, mass media that are considered to be "special." Addy Awards are annually presented to the best examples of advertising; Oscars go to exemplary achievement in movies; and Emmys are awarded for excellence in television programming.

Students should have opportunities to examine visual aspects of mass media and their impact on people and society. Comic books, magazines, television, movies, and other mass media are an integral part of the visual environment for students. Failure to acknowledge these powerful visual media in art classes can lead some students to think that art and aesthetics are only about things in museums. This perception may lead some to view art education as irrelevant to their lives and leave them ill-equipped to deal with the powerful influences mass media have on society.

In figure 5, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study of popular images.



Watchers
Children's Book Illustration
by Rochelle Robkin

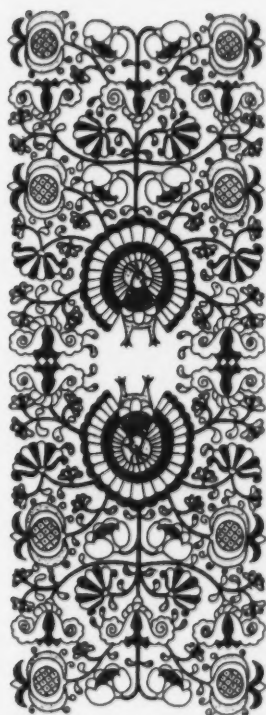
■ Figure 5

Sample Conceptual Statements for Art and Society

	Primary Grades 1. Popular images are designed to appeal to different groups of people. 2. The popular images we like change over time, and our ideas about what we like change.	Intermediate Grades 1. Popular images tell us about who we are and what our needs are. 2. We can learn to recognize how popular images might appeal to some people and not others.
<i>History</i>	Ask your parents or older friends what popular images, like comics, cartoon characters, letterstyles, clothing, and so forth, they remember from when they were young.	Create a display of some popular images to show how they have changed over time.
<i>Aesthetics</i>	Talk about some differences between popular images and works of art in museums. Think about what these differences say about us and our ideas about art.	Why do you think popular images from different countries or different times look different from each other? In what ways are they alike?
<i>Criticism</i>	Make an exhibit of images that are popular for different types of people (young, old, men, women, married, single). How are these images like each other? How are they different?	Select some popular image and make a list of qualities it should have to make it the best of its kind. Compare your list with others.
<i>Production</i>	Find out how certain popular images are made. See if you can make your own image using those techniques and procedures.	Study the techniques and processes used to create some popular image, and see if you can make one.
<i>Discovery</i>	Many images that are popular now will not be popular in the future. Make sketches and notes about what you think some of the next popular images might look like. How do your ideas compare to the way things look now?	Make a series of drawings to show how you would change or improve some popular image (like a magazine cover, CD cover, or cartoon character).

Middle Level	High Schools	
1. Popular images reflect the needs and desires of people in our culture. 2. The way people make popular images changes over time.	1. Popular images appeal to that part of us that is most like everyone else in our group. 2. We can learn to recognize when we are trying to be like everyone else and when we are trying to be ourselves.	
Find out about a person in your town who works to create some mass-produced image and write a story about that person and what he or she does. Use drawings, photographs, and possibly one of the real objects to make a display about the person and the process he or she uses to make something.	Put together a time capsule of the different types of images that are popular today. Make another time capsule that would represent popular images from some date in the past or the future.	<i>History</i>
What is your favorite mass-produced image? Talk with others and conduct research to find out reasons why so many people like that image.	Talk about the similarities and differences between images that are popular among different groups today? Talk about why these images are different and try to discover ways in which they are the same.	<i>Aesthetics</i>
Compare popular images that we use today to similar images used in the past. How are they alike and how are they different? Why?	Conduct a debate with students playing the role of someone who makes a popular image and someone who does not like the image. Try to come up with the best reasons for your ideas.	<i>Criticism</i>
Create an exhibit showing popular images today compared to those ten or twenty years ago.	Make arrangements to have someone teach you how to make your favorite type of popular image. See how good you can make this image without it looking like theirs.	<i>Production</i>
Make drawings to show a couple of ways you would redesign a popular image that people see everyday.	What are some popular images that you have seen in other places but not in your community? See if you can design a popular image that uses ideas from somewhere else but fits into the styles of your group.	<i>Discovery</i>

Folk and Traditional Arts



Teachers need to make students aware that the visual arts include the folk and traditional arts of their parents, grandparents, and neighbors. People sometimes forget that everyday objects and designs can be works of art if they are well designed and well crafted. Teachers need to present the folk arts as living arts. Traditional arts thrive today. Dancers, fiddlers, basket weavers, cooks, and storytellers are all carrying on traditions of particular families, communities, and regions. Each artist brings his or her unique skills and personality and, in the traditions of artists before him or her, creates objects, songs, dances, drama, or stories.

The folk and traditional arts are those that develop over time within a certain region or group of people and are transmitted from generation to generation, grandmother to granddaughter, or master teacher to apprentice. Folk artists often learn without formal training in schools. Great skill and long years of study and practice, however, are necessary to become a good folk artist.

Because folk artists have frequently been persons of little wealth, they often use materials commonly available in their area. Carved wooden spoons, hand-painted furniture, hand-hewn tables, and quilts are examples of objects used daily that people throughout the years have transformed into objects of beauty. Combining beauty with utility makes folk arts one of the design arts, but following a traditional way of carving, painting, or quilting gives the folk art its unique distinction.

How many folk arts can students name? Embroidery on blouses, designs on Easter eggs, appliqué on Winnebago Indian skirts, woven patterns on baskets, iron candelabra bent by blacksmiths—almost anything made by hand, when beautifully done and part of a long-standing tradition, becomes folk art. Every culture has its folk art. Students may name Menomonie Indian tribal masks, Norwegian rosemaling, or Mexican weaving. Few students are aware, however, of the intricacies of the rules of the craft, the many “schools” created by family, tribal, and geographic variations, or that people have jobs as professional folklorists.

Some sources of information about folk and traditional arts are the Wisconsin Arts Boards folk and ethnic arts coordinator, the Wisconsin Folk Museum in Mount Horeb, Winnebago Indian Museum in Wisconsin Dells, Cedarburg Cultural Center, Lac du Flambeau Cultural Center and Museum, and the State Historical Society. The American Craft Museum in New York has a catalog, slide, and video service with resources on a variety of clay, fiber, glass, metal, mixed media, paper, and wood crafts.

Celebration Art

Celebrations in one's own and other cultures provide exciting and festive entrees into the study of cultures that capture students' imaginations and provide opportunities to integrate a variety of learning activities. Students should realize, however, that festivals are special occasions and do not represent the everyday life of the people. Children from other cultures, for example, sometimes think that Native Americans wear feathers and deer-

skin clothing and are surprised to see them in blue jeans and tennis shoes. Students should also be aware that ceremonial clothing, when worn by a person from that culture, is not a "costume" that people might wear for a play or costume party, any more than a police officer's uniform or a judge's robes are costumes.

Holiday celebrations are part of annual school observances, but in most cases the decorations and activities have more social than artistic merit. Because the decorations are made from art materials and involve art-like processes, it is easy to see how people come to think of these as art activities. The process of having students create look-alike images under the direction of a teacher following recipe-like instructions can actually be counterproductive to learning in art. Since the results of such projects are predetermined by adult standards, they undermine the student's self-confidence and personal creativity. The projects themselves are often of questionable aesthetic quality and focus on surface features that reinforce stereotypes and clichés. These are characteristics that run counter to the goals of art education. The Getty Center for Education in Art produced a set of materials in collaboration with the National School Board Association (1992) called *More Than Pumpkins in October*, which indicate the NSBA's belief that art education has more significance than the creation of seasonal decorations.

In figure 6, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study of folk arts.



■ Figure 6

Sample Conceptual Statements for Art and Society

	Primary Grades 1. Many objects people use everyday are beautifully designed. 2. Everyday objects with pleasing designs make our lives better.	Intermediate Grades 1. The way everyday objects look is determined by many factors such as what they are used for, what they are made of, and who made them. 2. We can learn to recognize well designed objects, appreciate them, and make them.
<i>History</i>	Ask your parents or older friends what everyday objects they remember from their lives that were beautifully designed.	Create a display of some everyday objects that shows how the designs have changed over time.
<i>Aesthetics</i>	Sometimes people who make everyday objects do not consider themselves to be artists. Why is that?	Why do you think everyday objects from different countries or times look different from each other?
<i>Criticism</i>	Look at one of your favorite things and try to figure out why you like it so much. Talk to others for their ideas.	Select some everyday object and make a list of qualities it should have to make it the best of its kind.
<i>Production</i>	Make something for your school or home that will make your life better.	Study the techniques used to create some everyday object and see if you can make one.
<i>Discovery</i>	Draw something you have or use everyday and show how you would make it more beautiful or useful.	Make a series of drawings to show how you would change or improve some everyday object that someone uses at work or in their home.

Middle Level	High Schools	
1. The objects we use everyday were created to look the way they do for specific purposes. 2. The way people make objects look changes over time.	1. Beautiful objects we see around us that are made by people we know are often taken for granted and not fully appreciated. 2. We can learn to recognize and appreciate quality objects whenever we encounter them.	
Find out about a person in your town who makes objects by hand and write a story about that person and what he or she does. Use drawings, photographs, and possibly one of the real objects to make a display about the person and the process he or she uses to make something.	Make a display of the different types of things that are made in your town and include information about who makes them and how.	<i>History</i>
Do you make anything that you enjoy or use everyday? Talk with others to find out reasons why some people make things and other people do not.	How are the different things made in your town alike? How are they different from each other and from similar objects made in other places and by other people?	<i>Aesthetics</i>
Compare objects that we use today to similar objects used in the past. How are they alike and how are they different? Why?	Talk to people who make things in your town and ask them who they think are some of the best at making these things. Find out how they decide if something is well done or not.	<i>Criticism</i>
Modify or create an object that is important to you and that you would like to have for a long time.	Make arrangements to have someone teach you how to make something. See how good you can get at making it.	<i>Production</i>
Make some drawings to show a couple of ways you would redesign some important object used by people on a regular basis.	What are some things that you cannot have made in your town? What would it take to have them made?	<i>Discovery</i>

Art of Other Traditions

Art has many different traditions and standards not easily translatable into terms and criteria of European-American cultural traditions. Artworks from Africa, South America, Asia, the Middle East, and other parts of the world have traditions, symbols, meanings, and purposes different from those of Western European culture. Learning about those differences is essential to understanding the significance and meaning of these art forms. One should realize that too often the word "art" in the United States is used as a synonym for "Western art."

It is presumptuous to think that one can "understand" another culture, or its art, but people can achieve a greater level of awareness through thoughtful study and reflection. In this endeavor, teachers and students become co-learners, exploring rich new worlds together with open, receptive minds. One-shot projects that touch on the surface characteristics of the art of another culture may actually create more misunderstanding than real learning. Students should learn that they cannot "do Japanese art" unless they are Japanese. Dressing up in "costumes" of other cultures or doing U.S. versions of artwork from other cultures may be offensive to those cultures. Imagine students from the Middle East dressing up as cowboys and Indians to learn about the United States. If the time or resources for a careful, reflective study of art of another culture are not available, it may be better to not do it. A student, because of his or her heritage, travel experience, or personal interest, may choose to focus on learning about the art of another culture in some depth over an extended period of time. That student could become the local "expert" and be a valuable resource for others.



Bawa ji gunn ahbee
Ojibway dream catcher
Drawing by Judith Hanke

Native American Art

The Wisconsin Educational Standards require that each school board, as part of the social studies curriculum, include instruction in the history, culture, and tribal sovereignty of the federally recognized American Indian tribes and bands located in this state at least twice in the elementary grades and at least once in the high school grades. Indian tribes located in Wisconsin include Winnebago, Menominee, Oneida, Forest County Potawatomi, Stockbridge-Munsee, and several bands of the Lake Superior Ojibway including the Lac du Flambeau Chippewa, St. Croix Chippewa, Sokaogon Chippewa, Lac Courte Oreilles Chippewa, Red Cliff Chippewa, and Bad River Chippewa.

As with all art, Native American artists express their culture in their work. In the integration of units or lessons on Native American art forms with other art, concepts dealing with the histories, cultures, and issues of sovereignty of the tribes can be introduced and discussed. All students should be introduced to the significance and beauty of art forms from indigenous cultures. American Indian students, in addition, should have opportunities to practice their art and to study it academically as a part of any classroom art instruction. Tribal artists, tribal elders, and other people recognized by the tribes as knowledgeable, such as teachers who have extended experience working with Indian students, are good resources and often available for classroom presentations. The Department of Public Instruction has two American Indian Studies consultants who can provide

information about other resources, such as department publications about Indian education, including *American Indian Resource Manual for Public Libraries*, which includes clip art, and *Classroom Activities on Chippewa Treaty Rights*, which contains teaching materials.

Studying indigenous art forms is a good way to help students understand aesthetics as a field of inquiry. Many tribal languages, for instance, have no distinct word for "art." American Indian cultures most often have integrated concepts of beauty, environment, and spiritualism that do not separate aesthetic perception and concepts of quality from daily living. For example, Winnebago moccasin maker Margaret Hart is uncomfortable with the title "master artist." She asked the Wisconsin Arts Board folk arts coordinator, Richard March, to "Just say I'm good at making moccasins."

African-American Art

Until the 1980s and '90s, it was difficult to find published curriculum material on African-American art and artists. Exclusion of African-American artists from the record of American art history was an omission that presented an incomplete and distorted view of history. Recently publishers began producing resource materials to help educators provide a more balanced picture of art in America that includes contributions and artistic influences of African and African-American artists. Some artists included in materials provided by publishers are Benny Andrews, Romare Bearden, Barbara Chase-Riboud, Beauford Delaney, William H. Johnson, Jacob Lawrence, Gordon Parks, Horace Pippin, Faith Ringgold, Alison Saar, Bill Traylor, Martin Puryear, Joshua Johnson, Henry Ossawa Tanner, John Biggers, David Hammons, Michael Cummings, John Outerbridge, Marie Johnson Calloway, and Alma Thomas.

It is important to distinguish between artists working in the United States and the separate art traditions of the country of their ancestors. American minority communities have living, dynamic, internationally-acclaimed men and women who are artists in their own right. A unit on African-American art, for example, should focus on contemporary and historic African-American artists rather than on sculptures in Benin, Africa. In many cases referring to an artist as an "African-American artist" (or "woman artist," "Indian artist," and so on) is misleading, because it appears to confine the artist's significance and artistic influence to that group alone.

Hispanic Art

Wisconsin has many Hispanic-American students, and their rich cultural heritage should be recognized as part of regular instruction in the arts. Their culture has had a profound effect on the development of American art traditions. Distinct artistic traditions of Spanish speaking people include Mexican, Mexican-American, Spanish-American, Spanish, South American, and Central American. Each has its own history and set of styles. Some prominent Hispanic, Latin-American, and Mexican-American artists include Salvador Dali, El Greco, Antoni Gaudi, Francisco Goya, Frida Kahlo, Jean Miro, Luis Jimenez, Pablo Picasso, Diego Rivera, Rufino Tamayo, Diego Velazquez, and Jose Clemente Orozco.



Asian-American Art

Wisconsin has a growing number of Asian-American students whose cultural ancestry has a long and richly textured tradition. Japanese, Chinese, Korean, Hmong, Laotian, Cambodian, and other Asian cultures have become part of the fabric of Wisconsin's cultural quilt. Some prominent Asian-American artists include sculptor Isamu Noguchi, video artist Nam June Paik, and architect I.M. Pei. Wisconsin has a sister state relationship with Chiba prefecture in Japan. There is a cooperative program to place teaching assistants from Japan in school districts. The Department of Public Instruction has an international studies consultant and a foreign language consultant who can both provide information about resources. Kodansha Publishing Company, with offices in the United States and Tokyo, is a good source for books about Japanese art, architecture, design, culture, and aesthetics.

In figure 7 on page 64, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study of art of different traditions.

Outsider Art



Simon Sparrow, Untitled, 1990
Oil Pastel, 23 1/4" x 17"
Collection of Madison Art Center
Purchase

Outsider art is a term sometimes applied to individualistic work that is created outside the traditions of studio, folk, or design arts by people who usually have little formal training and are not following conventional modes of expression recognized by mainstream culture. The Concrete Park created by Fred Smith in Phillips, Wisconsin, which has dozens of full-scale concrete representations of lumberjacks, oxen, muskies, and horse-drawn wagons decorated with shards of imbedded glass, could be considered an example of outsider art. Another Wisconsin example of outsider art is the unique work done by African-American artist Simon Sparrow, who paints and glues found objects to wood panels. Students should be exposed to outsider artists because outsider artists are part of the rich texture of Wisconsin's culture. The Wisconsin Arts Board is a good source of information about outsider artists in the state.

Artistic Expression

The arts are included in First Amendment rights guaranteeing freedom of speech. The First Amendment reads, "*Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.*"

Artistic freedom of expression should be included in the curriculum as part of understanding the role of the arts in society rather than as a reaction to instances of censorship. Students should discuss censorship, intimidation, diversity, freedom of expression, elitism, multiculturalism, individual rights, social conventions, community norms, personal conviction, tolerance, and other issues relating to artistic expression.

In addition to inclusion as a regular part of the curriculum, districts should have a policy to deal with challenges to instructional material or exhibitions. Freedom of expression should be a topic of discussion in faculty meetings and teacher inservice programs. The school should have or develop educational materials on freedom of expression through the arts. Art teachers should consult with language arts and reading teachers because they deal with censorship issues on a regular basis in terms of books for students. Their guidelines for handling challenges from parents and the public can be usefully adapted to artistic forms of expression. The National Art Education Association has a social theory caucus that is interested in issues such as this. Doug Blandy and Kristin Congdon edited *Art in a Democracy*, which addresses issues of social rights and responsibilities for art.



Art and Religion

Some artwork from around the world has religious significance that is essential to its meaning and value to that culture. Much of this artwork transcends its religious origins and is appreciated for its aesthetic qualities alone. The study of religious art is an appropriate part of art education, and omitting it from the curriculum would present an incomplete and inaccurate perception of art. For some works of art it is important to consider religious influences to understand the work, the artist, the style, or the historical period.

The First Amendment prohibits either the advancement or inhibition of religion by the state but does not forbid all mention of religion in public schools. Public schools are not required to delete materials of a religious nature from their curricula but teachers should exercise good judgment in selecting artwork for study by students. Teachers should be sure that the work is being selected for its artistic and educational value rather than its religious significance. Presentation of the material should be neutral in the sense that it does not promote or inhibit any religious views and that the traditions of different people are shared and respected. Some Native American artworks, for example, have religious significance and should not be displayed out of context without consulting tribal leaders.

Figure 7

Sample Conceptual Statements for Art and Society

	Primary Grades 1. Many different kinds of people create objects of beauty. 2. We can learn to enjoy the variety of different ways people make things beautiful.	Intermediate Grades 1. Seeing differences in the way people make things can give us ideas for improving our lives. 2. We can all discover ways to improve our lives and the lives of others.
<i>History</i>	Make a display of some of the different ways people fashion their world. Show the difference between their everyday objects and their objects for special occasions.	Create a display that shows how artwork, architecture, and design are influenced by contact with people from other cultures. Japanese influence on Frank Lloyd Wright's work is an example.
<i>Aesthetics</i>	Talk about why some things look strange to us. What do you think about people liking different things?	Collect pictures showing the interior of homes from different cultures. Discuss the similarities and differences in these scenes and why they look the way they do.
<i>Criticism</i>	Make a list of the "rules" you have for something that looks nice. Your list might include an idea like, "I don't like messy things." Compare your ideas with other people; find out why they agree or disagree with you.	Present possible examples of "American" art or design and discuss what features identify them as American. For example, compare British, French, German, Italian, and Japanese automobiles to see how they differ from an American car.
<i>Production</i>	What things do we make that represent our way of life? Make something or draw something you would show to someone from another country that shows them what you are like.	Find something from another culture that you find visually interesting. Make a drawing showing how you would adapt it for use in your own town.
<i>Discovery</i>	Find something you think looks interesting that most people never notice. Figure out how to make people notice it and appreciate the way it looks.	Make a drawing showing how you would design an everyday object from the United States so that it would appeal more to the people of a different culture. To do this, you must get a sense of their visual preferences and the reasons behind them.

Middle Level	High Schools	
1. We sometimes take the world for granted and think it will always be the same. 2. We can make the world better by imagining how it could look and working to create that vision.	1. Objects people create are influenced by their cultural background. 2. Each of us is influenced by the society in which we live and the experiences we have.	
Make a display showing how your town changed as people from different cultures arrived.	Make a display that shows aspects of culture and past experience that contributed to the way people made objects look.	<i>History</i>
How are styles from different cultures mixed and combined to create new styles in your town (e.g. Native Americans wear blue jeans today, and we wear sandals from other cultures.) What qualities influence the selection of these styles?	How are things made in your town influenced by the different cultures and experiences of people in the town?	<i>Aesthetics</i>
List characteristics that describe the criteria people use for design in your town (e.g. what would people say if someone built an all-glass building?).	Select an object that looks different depending on the culture it comes from. Try to identify what different rules or criteria govern the look of each piece.	<i>Criticism</i>
Draw a scene combining some of the best designs from a variety of cultures to create the most beautiful composite image you can.	Try to make something by applying rules and criteria from a culture different than your own.	<i>Production</i>
Look at your school or town and draw some ways it could be improved by borrowing ideas from other cultures.	Make a work of art from an imaginary culture. See if the class can describe, based on the work, some of the attitudes and beliefs the culture would have.	<i>Discovery</i>

The Arts and Diversity

Although many would say that some differences are not acceptable, it is difficult to study the arts without recognizing the contributions made by gays and lesbians. Identifying with the visual power of Michelangelo's frescoes or the intellectual diversity of Leonardo da Vinci, many people can have models for leading productive and creative lives. The arts, more than other forms of inquiry, are based on the ability to express one's self openly and the belief that society benefits from this. They are based on the premise that all honest expression of experience is useful. In the arts, differences are respected because they add to the richness of art and of one's culture, as witnessed by the works of artists such as Caravaggio, Marsden Hartley, Rosa Bonheur, David Hockney, and Keith Haring. In discussing works of artists such as these, or what has been written about them, teachers should be prepared when issues of the artist's identity or life arise. While art is a reflection of the world, it is also a representation of its maker. Recognizing this can promote more accurate representations of the art and artist.

Gender Issues

While great strides have been taken in recent years, significant gender differences in access to the arts world still exist. Women are underrepresented in almost every aspect of the arts while being overrepresented in the few areas like textiles that are considered to be "women's work." Writers and publishers of art history texts and publishers of visual materials have begun to respond to this oversight by producing more materials about women artists. Teachers still need to actively seek out publishers with material about women in art. Material is available from publishers on women artists such as Jennifer Bartlett, Margaret Bourke-White, Mary Cassatt, Janet Fish, Helen Frankenthaler, Frida Kahlo, Käthe Kollwitz, Georgia O'Keeffe, Dorothea Lange, Louise Nevelson, Judy Chicago, Alice Neel, Bridget Riley, Audrey Flack, Jenny Holzer, Judy Pfaff, Miriam Schapiro, and Suzanne Valadon. The National Museum of Women in the Arts in Washington, D.C., has artwork by women artists from around the world and has changing exhibits by women artists throughout the year. In addition to producing art, women have made significant contributions in the field of art criticism. The work of such writers as Doris Ashton, Suzi Gablik, Suzanne Langer, Lucy Lippard, Linda Nochlin, Barbara Rose, and Susan Sontag has greatly contributed to people's knowledge and understanding of art.

Images of Women in Art and Media

The human figure is standard subject matter in the visual arts, but one needs to be conscious of the ways in which people, especially women, are portrayed in the arts and media. Art teachers and students must call attention to demeaning, exploitative, or stereotypical portrayals of women. Television, film, print, and other commercial media portrayals of women have received much criticism in the last few decades, so some good articles and resources are available for discussion.



John Berger's *Ways of Seeing* is a source for thinking about visual literacy that gives a number of examples of how women have been portrayed in art. Berger notes that men are often portrayed in stances to show their power over others while women are portrayed projecting an image of vulnerability. His examples show how visual images can have a powerful influence on the way people think.

Not only are artists striving to be more sensitive to the problems of the objectification of women in media and the arts, but photographers and illustrators are striving to avoid stereotypical depictions of female role models in children's literature and other publications. For example, both males and females should be shown in active roles rather than depicting women only as passive. Teachers and librarians should seek out examples that show how artists and designers have attempted to improve and diversify visual representations of women.

Images of women in fashion, media, and art have been dominated by the male perspective of their creators. Increasing representation of women as artists and arts professionals is opening a rich vein of new images of women, men, and the world in general. This benefits the self-images of women, who make up half of the population, and opens the way for more balanced, rich, and varied perceptions and ideas for all people. *Women, Art, and Education* by Georgia Collins and Renee Sandell is a good resource for more information.

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5



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Introduction

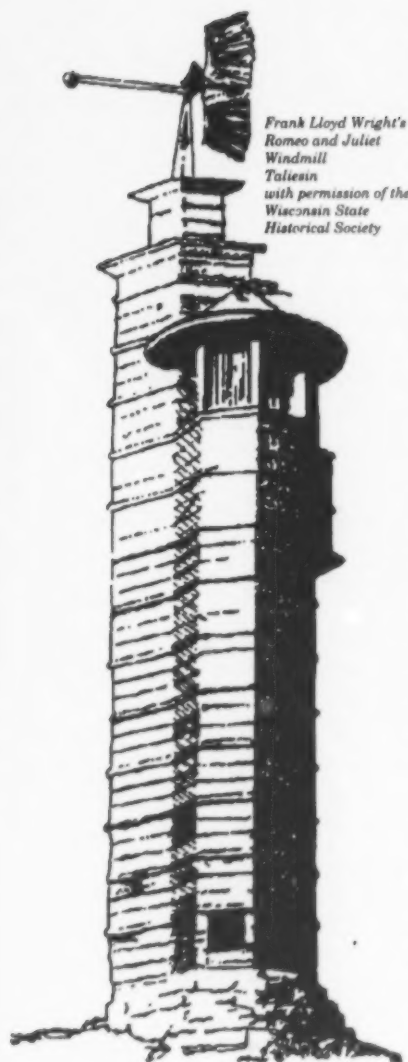
The design arts are often not as well represented in art classes because most teachers are trained in studio art with little preparation or background in the design arts. The National Endowment for the Arts' *Toward Civilization: A Report on Arts Education* found that almost nothing related to architecture and the design arts is taught in schools. The design arts do not appear in most curricula and teachers are not prepared to teach them. Students should have experiences in school that enable them to understand the role of design in the built environment and give them the knowledge, skills, and attitudes to improve the quality of design in people's lives.

In a world that is significantly visual, it is easy to see that design is everywhere. Except for the few locations purposely kept in a natural state, or with little apparent use to society, the entire environment is ordered and organized. To understand the complete nature of this world, people need only look around them. The cities people live in, the clothes people wear, the buildings where people work, the parks where people play, even the objects people use to accomplish their varied tasks—all are planned. And the people responsible for this order must have visual skills and abilities. This is the world of design education (Sparke, 1987).

Design is often considered in terms of elements and visual organization. Students are regularly introduced to design by learning the nature of line, color, shape, value, volume, and texture. The concepts of visual order add to the understanding of these elements. However, design education is greater than the sum of these parts. Design is the human activity that involves critical processes of problem solving related to the varied activities of being human (Margolin, 1989).

Art education in this century has been highlighted by the German design school called the Bauhaus. This unique school joined artists and craftsmen as teachers in the studio classroom. Although it closed in 1933, the significance of the Bauhaus persists in today's world. One Bauhaus premise is the seemingly simple statement, "*form follows function*." While these words are commonly considered a design axiom, the contemporary design artist recognizes the broad perspective needed to articulate them. Design is about utility. Therefore, the design process is not complete without considering the integrated effects of society, technology, and material on all things made. Additionally, the act of designing includes not only planning and production, but also (and significantly) distribution and consumption. Design then has its source not only in the thoughts of the designer, but also in the social milieu of the person using the design object.

Engineering design is a field that deals intimately with visual/spatial/bodily-kinesthetic systems. Suspension bridges, airplanes, ships, and skyscrapers all involve complex design systems that deal with function, structure, aesthetics, and social change. Books by Henry Petroski such as *Design Paradigms* and *The Evolution of Useful Things* examine the design of objects from the common pencil to the suspension bridge. Petroski considers the complex systems of judgments involved in John Roebling's design of the Brooklyn Bridge one of the major design exemplars of the 20th century.



Owen Edwards, in the introduction to his book *Elegant Solutions*, says, "The great charm of the suspension bridge is that its grace springs inevitably from the necessities of its construction. The opposing curves of its main cables and its suspended roadway, the upward thrust of its support piers and the ranks of secondary cables reaching down—all combine to create a sculptural illusion of delicacy and weightlessness so entrancing that it almost seems to be a form of flight." Edwards finds similar grace and beauty in the simplicity and elegance of design of such diverse objects as paper clips, champagne glasses, zippers, paper airplanes, felt tip pens, lipstick tubes, and the Concorde airplane.

The concept of judgment takes on a different meaning in design arts than it often has in art criticism. Judgment in art criticism usually refers to making an evaluative decision or statement about the value of a work of art. Judgment in the design arts centers more on the ability of the designer to make error-free decisions based on prior experience and knowledge. Bridge designers, for example, make judgments about the design of steel supports based on errors that caused earlier structures to fail. Failures of design that did not take into account the weight of a freight train, the rhythm of marching soldiers, the force of side winds, the shock waves of earthquakes, or the unexpected movement of a large number of people watching boats go under a bridge, result in the failure of the structure and, often, the loss of lives. In *Design Paradigms* Petroski says, "Judgment, in short, is what avoids mistakes, what catches errors, what detects flaws, and what anticipates and obviates failure. The single most important source of judgment lies in learning from one's mistakes and those of others." One of the goals of art education is to provide students with real-life experiences in controlled settings to help them develop judgment.



Goals for the Study of Design Arts

Goals for the design arts include such areas as developing knowledge and understanding of the design arts, communication skills, problem solving, skill development, and education for employment.

Knowledge and Understanding

Students should know the basic vocabulary and concepts of design. In this case, this does not mean elements of design such as line, color, and shape, but rather the complex concepts and terminology of architecture, industrial design, landscape, fashion, and so on. Younger students should begin with basic ideas and develop, by twelfth grade, an understanding of ideas such as ergonomics, tensile strength, color saturation, function, and form (Ferebee, 1980).

Students should develop an understanding of the role of design in society and its effect on the quality of life. They should understand that designs are created by people and know some of the key people who have changed the world through design. Students should know how design innovations influ-

ence and are influenced by social, scientific, political, philosophical, and technical developments in society at large. Students should be aware of major design influences such as John Roebling's Brooklyn Bridge, Frederick Law Olmsted's Central Park in New York, Raymond Loewy's industrial designs, and Milton Glaser's graphic designs.

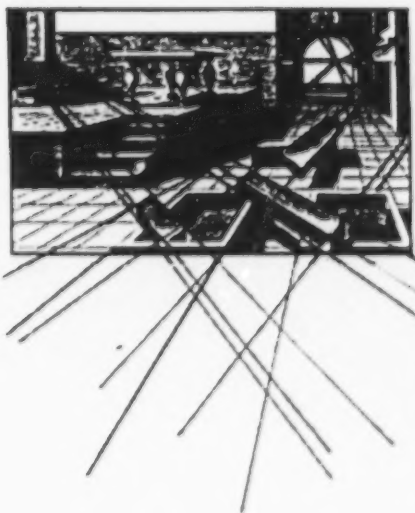
Skills

Students should have experiences in developing basic skills for design, such as the intuitive sense of balance and gravity developed by preschool students playing with wooden blocks and the use of CAD (computer assisted design) programs by high school students to design complex architectural designs.

Many of the designer's skills are related to those of the studio arts, but significant differences exist in the methods and procedures used in these distinct areas of the arts. Design artists usually have to take into consideration how their designs can be reproduced in mass quantities and how the reproduction process may influence the look and function of their designs. They must learn to work under strict time and budget constraints and learn how to present their ideas to clients verbally and visually. Students should know about the basic skills and methods used in the design arts, whether they plan to become designers themselves or wise users and buyers of designed objects (Harbison, 1991).

Problem Solving

Problem solving is a major component of the design arts because many of the designs are produced in response to specific needs and challenges of the design world. Automobile designers, for example, are trying to create an aesthetically pleasing design that will appeal to a broad range of drivers, be aerodynamical for speed and economy, while being safe and functional. Designers are often working with very stringent constraints imposed by the function of the product and the needs and desires of the clients.



Whereas "problem finding" is a key component of the studio arts, it is in the design arts that students come face to face with distinct problem solving challenges. The strengths or weaknesses of their designs are often evaluated by fairly straightforward, real-life measures. Do people buy their buildings and do the buildings remain standing after an earthquake? Do people buy their products over their competitor's? Are the products functional and pleasing enough to get the customers to come back and buy more? Do sales of products go up as a result of the advertising designs created or do a competitor's products begin cutting into sales? These are very concrete assessment measures used in the design arts. Failure to solve the problems effectively has definite economic and personal consequences for designers and their clients (Green, 1974).

Communication

Developing a high level of communication skills is an important goal in the design arts. Designers have to communicate effectively through drawings, plans, and models. They also need to make effective verbal presentations to clients and others who do not have highly-developed visual skills.

Making verbal and visual presentations to explain and defend designs is a regular part of the training and day-to-day experience in architecture, landscape design, product design, and the many other design fields. Students in design have regular experiences in preparing, observing, and evaluating presentations they and others make.

Education for Employment

Of all the art forms, the design arts are most clearly related to the world of work. Students in the design arts take educational paths similar to those of students in other vocational areas. Some continue study of the design arts in colleges or universities, but many go directly into the job market or undergo several years of training in a technical college or school of design.

There are hundreds of job categories for design artists, thousands of types of design arts jobs, and millions of working designers across the United States and around the world. While beginning designers enter a highly competitive world and are often not highly paid to begin with, design artists are not "starving artists" in any sense.

The breadth of design education can include topics such as fashion design, graphic design, industrial design, landscape architecture, media arts, and product design. Peter Rowe's *Design Thinking* provides a general view of designing and its inherent qualities that set it apart from other forms of inquiry.

The Built Environment

The following suggestions for design arts topics are not meant to be all-inclusive, and the terms are not intended to be definitive. Rather, they are intended to show the scope of design education.

Architecture

Students can begin by looking at their own school. What areas of the school are most pleasing and which are not? What can be changed about the school to make it a better environment in which to learn? Architecture shapes and forms the human environment. The architect melds into form concerns for space, function, and design. Since the earliest people left the safety of their caves, there has been a need for constructing enclosed spaces that serve a variety of personal and social needs. Obviously throughout this history, as purposes and technologies have changed, types of structures and their styles have changed. And even these expected changes have been tempered by the affluence of the individuals for whom the buildings were made (Parry, 1982).

An architect will work with a variety of other professionals including urban designers, interior designers, landscape architects, industrial designers, building craftspeople, contractors, engineers, corporate and residential clients, inspectors, and individuals representing local political jurisdictions.

Students should be aware that buildings and other features of the built environment are designed by people like themselves and that the students can, in the future, have an influence on the quality of the built environment (McAlester, 1990).

Frank Lloyd Wright, whose school and home are in Spring Green, Wisconsin, was one of the world's most famous architects. He pioneered what is referred to as *Prairie Style* architecture and has many significant buildings in Wisconsin and around the world. One of Wright's teachers, Louis Sullivan, is a world renowned architect whose buildings include a bank in Columbus, Wisconsin. Eero Saarinen, the Finnish born architect, designed the War Memorial Building in Milwaukee, which is now the site of the Milwaukee Art Museum. Chinese-born American architect I.M. Pei had a great influence on architecture across the world. Contemporary U.S. artist Frank Gehry's unusual rhythmic designs explore flowing patterns available with contemporary building materials.

Interior Design

Interior design is the organization and furnishing of interior spaces. A fine interior design is comfortable, functional, and expresses the needs and personalities of its occupants. Interior designers work with clients to create interiors for homes, places of business, and public spaces. Interior designers must have an awareness of design, an aptitude for spatial relationships, a knowledge of architecture and historical periods of art, and a good understanding of the materials they work with. The designer must also select and arrange lighting, fabrics, textures, colors, furniture, and objects to create moods and suit specific needs consistent with the lifestyles of their clients. Interior designers often study other cultures for their design influences such as Afro-pop and Japanese modern design (Garner, 1990).

The American Society of Interior Designers (ASID) is the major professional organization for the interior design field. ASID designers worked with the Kohler Design Center in Kohler, Wisconsin to create interior displays of bathrooms using Kohler products. This unique museum is an excellent resource for ideas and information about interior and product design. *Architectural Design* is a leading magazine on interior design.

Environmental Design

As environmental education is an important part of education today, teachers can use this interest to introduce aesthetic issues related to the environment. Environmental design is large-scale planning that improves the aesthetic quality of people's surroundings. To be efficient, the environment needs logical and utilitarian planning in the ways that space is allocated and in the movement patterns of people and vehicles. Designers of the environment plan ways to handle traffic by creating safe, efficient, highways and mass transit systems. Transportation and travel patterns

often determine the structure of many cities and regional areas. The term "environmental design" is often used collectively or interchangeably with urban and regional design (Marschalek, 1989).

Urban design is the process of designing towns and cities so that they will be efficient and aesthetically pleasing environments. Nearly every American town and city has a city planner. Urban designers create plans for streets, parks, bike paths, marinas, sports complexes, and industrial parks. Often towns and cities develop long-range plans so as to control and direct the development of urban areas. Because social needs have changed in communities, often contemporary urban design considers the redevelopment of older areas of a city. An urban planner must be able to work with a variety of individuals such as government officials, architects, engineers, corporate executives, environmentalists, and local residents of an urban complex. While it is easy to understand how an urban designer helps develop the unique look of a community, it is important to recognize that these planners play an important role in influencing the daily living patterns and even the morale and spirit of the inhabitants of a community.

Regional design is the process of designing outlying areas around towns and cities. The preservation of natural ecological balances must be a prime requirement in the creation of every design. Regional designers must be sure that structures do not interfere with or create problems related to the environment. They must plan in a way that enhances the aesthetic quality of the surroundings. Structures can be designed to blend in with the environment, to become an integral part of the site.

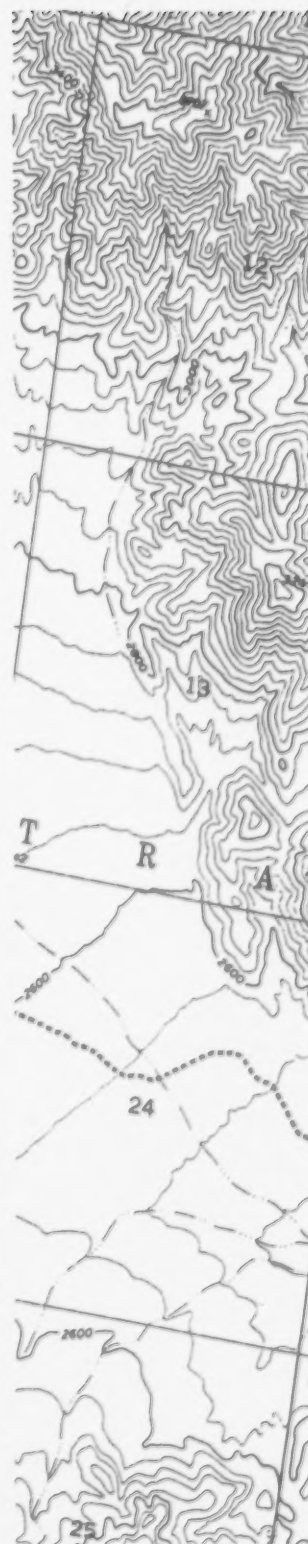
Regional designers must create in a way that will preserve the natural environment. The supply of clean air, water, and land must be protected, and sound levels must be controlled. Designers must help to eliminate or reduce the sources of pollution that are deteriorating natural resources.

Phil Lewis, director of the Environmental Awareness Center at the University of Wisconsin-Madison, had a profound influence on regional design in America and his ideas appear in much of the literature of urban design. He is noted for his concept of Circle Cities, 22 donut-shaped clusters of cultural and physical urban growth he mapped across the United States.

Landscape Architecture

Teachers need to make students aware that the way people change and design the landscape is a form of art. Landscape architecture deals with the relationship between natural and designed land forms. Students can look at their communities and identify areas of the natural environment that are most pleasing. They can analyze those areas to determine what it is that makes a natural environment satisfying and try to apply those ideas to another area that is not considered pleasing. Students can explore the interaction between the built and natural environments and explore ways in which the natural environment can be preserved, protected, or restored when necessary.

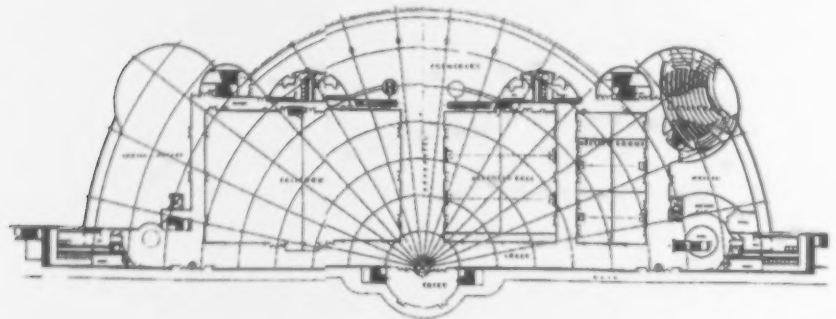
Landscape architects specialize in the planning of outdoor areas and the use of the natural environment. They use natural (plants, flowers, trees, shrubs, rocks, and water) and constructed (sculpture, fountains, and buildings) elements to design outdoor areas that are comfortable and visually



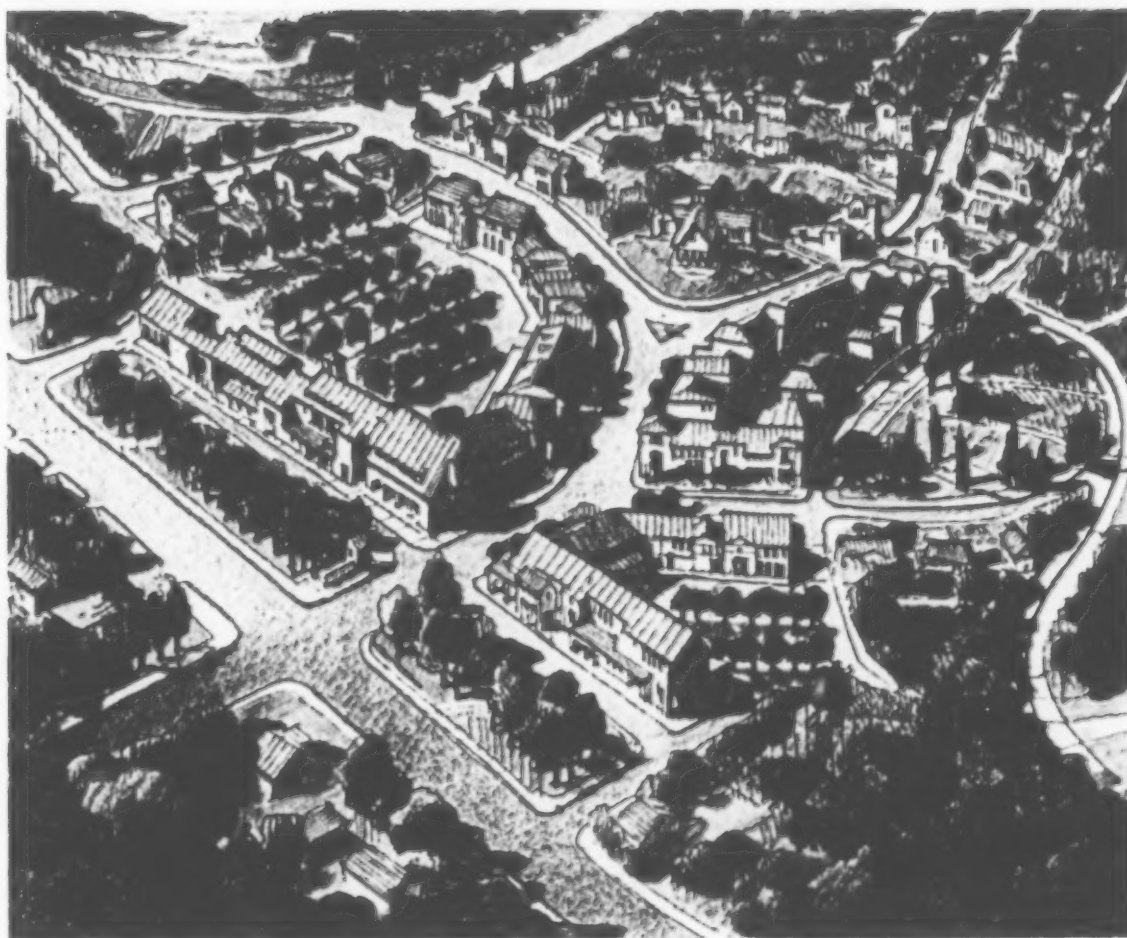
appealing. Landscape architects create recreational spaces as diverse as parks, golf courses, shopping malls, and arboretums. The landscape architect may redesign settings around buildings and along roads. Landscape architects may work on a variety of projects, from small residences to environments that include numerous buildings, highways, and parks. On large-scale projects, landscape architects work with architects, engineers, contractors, and environmental planners. The entire team must consider all the conditions of a specific site including the land contours, climate, seasonal changes, plants, drainage, view, wind direction, and natural light. In different parts of the world, designers must take into account deserts, trade winds, earthquakes, or monsoons. Frederick Law Olmsted, whose works include the design for Central Park in New York, is one of the most influential landscape architects in American history. His work can be seen in the design of Brown Deer Park in Milwaukee.

A good source for information about landscape architecture is a book edited by UW-Madison professor William Tishler called *American Landscape Architecture: Designers and Places*. It was produced with the help of the American Society of Landscape Architects and is part of a series produced by the National Trust of Historic Presentation.

In figure 8, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—can be used as a springboard for classroom instruction dealing with the built environment.



The Monona Terrace Convention Center, Madison, Wisconsin
Designed by Frank Lloyd Wright
With permission of the Frank Lloyd Wright Foundation



*Sketch of proposed Middleton Hills Community, Middleton, Wisconsin
Designed by Andres Duany
With permission of Marshall Erdman and Associates*

Figure 8

Sample Conceptual Statements for Design Arts

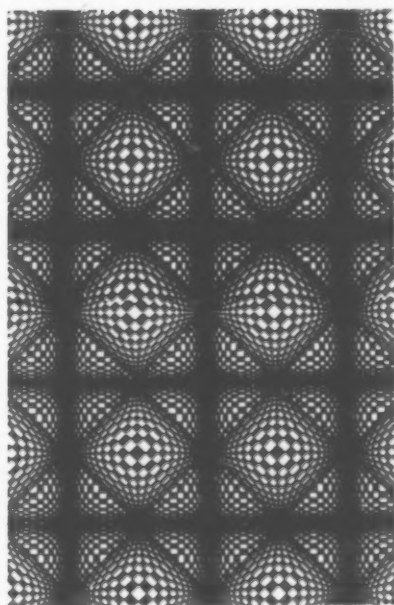
	Primary Grades 1. Altering our surroundings to suit our needs constitutes environmental design. 2. Within our environment we live in two types of spaces: landscape and architecture.	Intermediate Grades 1. City planning and architecture influence daily living patterns and reflect the spirit of the community. 2. Each culture uses environmental design to meet the needs of the society.
<i>History</i>	Use art reproductions to show how people live, work, or play in different countries, cultures, times, and spaces (i.e., architecture, parks, gardens, playgrounds, tribal villages, tepees, and cathedrals).	Study the grid system of a Roman city, compare environments of rural and urban communities, or compare and contrast a Wisconsin town with a Chinese village.
<i>Aesthetics</i>	Discuss how you feel in different spaces. Discuss what is interesting and dull about these places. Discuss how nature is important to the way we live, play, and work.	Discuss what is beautiful in the environments of different cultures. Discuss what people in these cultures value that affects the design of their environment.
<i>Criticism</i>	Discuss how places can be improved with respect to their use and appearance (color, shape, arrangement, and accessibility).	Examine how areas of cities are organized with respect to business, recreation, home, and multiple family housing. How does this reflect the values of the community? Identify areas of the environment that should be improved.
<i>Production</i>	Identify places in which people or animals live and interact that could be changed in a positive manner. Make drawings, paintings, or constructions that convey your ideas about these places.	Make drawings that illustrate poor city design. In written or verbal form, explain why they are poor designs. Develop drawings that show proposed changes or improved environments for people and animals in the present or future.
<i>Discovery</i>	Make a drawing to show how you would change the landscape around your school. Think about trees, flowers, bushes, water, rocks, animals, and other naturally occurring features in your areas.	Using what you have learned about other cities, look at a map of your town and show what it could look like in 20 years with careful planning.

Middle Level	High Schools	
1. Environmental design can have an impact on our environment and our world, country, state, city, and home. 2. Architecture can be aesthetic, but it also needs to be logical and utilitarian.	1. Physical and psychological needs of people are affected by their surroundings. 2. The environmental designer works with people at several levels, e.g., architects, city officials, corporate clients, and individual clients.	
View photographs that demonstrate poor environmental decisions at the world, national, state, and local levels. Study Japanese gardens, well designed cities, and environmental designs such as those by LeCorbusier and Frank Lloyd Wright.	Invite a city planner who can provide a history of your community. Discuss his or her role in past, present, and future planning.	<i>History</i>
Discuss how our values and cultural judgments affect the design of our environment.	Discuss what structures in our environment at the world, national, state, city, and personal levels should be saved for their intrinsic value, and why (e.g., Florida wetlands, Indian mounds, significant architecture, and natural terrain).	<i>Aesthetics</i>
Find two opposing points of view concerning the design and use of the environment. Discuss the reasons behind these views.	Develop criteria to be used when critically judging environmental design projects.	<i>Criticism</i>
Select a site. Assess how different groups of people (e.g., senior citizens or the disabled) and clients (e.g., industry, transportation, housing, and recreation) would propose changes in the site. Make drawings or models of proposed changes.	Develop a photographic study of an area of your city or school. Analyze the use and needs of the area. Develop proposed changes in drawings, paintings, or three-dimensional models. Make a presentation to city officials, community leaders, school board members, or school administrators of the proposed changes.	<i>Production</i>
Make a scale model of your town that shows 1) the existing town, 2) proposed changes to the town, and 3) suggestions for the future of the town.	Read about the city design ideas of Andres Duany and Elizabeth Plater-Zyberk. Design a new community development for a specific place in or near your town using some of their ideas.	<i>Discovery</i>

Graphic Arts

Graphic Design

Students should be aware of how the graphic arts are used to communicate ideas visually. Graphic artists design images intended to attract attention and provide information. The products of the graphic designer are extremely varied and can include posters, advertisements, illustrations, logos, packages, CD covers, book jackets, and a variety of other promotional materials. Graphic designers provide visual images for newspapers, magazines, and brochures; for television, and film media; and for interior and outdoor display.



The graphic artist needs to possess a variety of skills involving art media. Graphic designers should first have an ability to work with traditional art forms, such as drawing and painting. Awareness, understanding, and ability to use new computer technologies is also of value. And because the end product of graphic design is produced through printing media, one needs to have a command of those processes: relief, screen, lithography, gravure, electrostatic and ink-jet printing. Generally, it might be said that the graphic designer has a broad understanding of all aspects of the profession.

Because of the demands of the work, graphic designers might work with a number of other professionals in order to produce successful products. Architects, photographers, computer artists, and copy writers might all contribute to the practice and production of the graphic designer. Graphic artists in some eastern European countries, such as Poland, become well known and their work is collected by the public. Their work often includes political or social commentary. Jobs in the graphic arts include art director, typographer, illustrator, book designer, layout designer, graphic artist, computer graphics designer, and advertising designer. Some magazines that provide ideas and information on graphic design include *Communication Arts (CA)*, *Print*, and *Step-By-Step*.

Illustration

Students should become aware of the role of illustration in clarifying and enhancing communication. Illustrations are usually created to enhance the appearance or comprehension of written or other materials. Many students do not understand how illustration differs from drawing or painting in that the illustrator must be able to create an image on demand to meet a specific purpose, often in a relatively short period of time. The illustrator must be able to deliver a high-quality image every time and on time to meet someone else's expectations. Students should have opportunities to try illustrating a poem, or short story, or creating an illustration for advertising purposes.

Meaning and clarity are important aspects of the illustrator's art. The work of the illustrator can be found in television, film, and a variety of publications. Because of the potential diversity of the finished image, illustrators should possess a variety of artistic skills such as drawing, painting,

and designing. They may often specialize in rendering specific subject matter, such as people, automobiles, plants, or news and sporting events. For example, the medical and technical illustrator must be able to draw with extreme accuracy and realism. Illustrators might also specialize in using certain media like pen and ink, watercolor, or airbrush. In addition to technical artistic skills, the illustrator needs to have the personal skills to deal with a variety of clients.

While illustrators might work with an art director in a corporate studio setting, they will often work as free-lance artists. In this capacity the illustrator has great independence but has the added responsibility to make contacts with people in a variety of business and industrial communities in order to find work.

Specialty areas for employment include

- medical illustrator,
- product illustrator,
- industrial illustrator,
- science fiction illustrator,
- courtroom illustrator,
- technical illustrator,
- botanical illustrator,
- product illustrator,
- storyboard illustrator, and
- children's book illustrator.

David Considine's, Lyn Lacy's, and Gail Haley's book *Imagine That* includes a wealth of ideas to develop critical thinking and viewing skills through children's literature. The authors discuss topics such as picture books, ignorance of imagery, imagery and instruction, visual literacy, and how children see pictures.

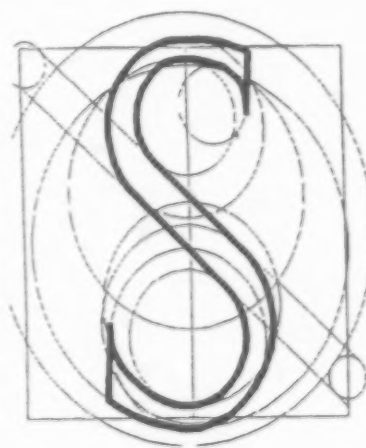
Typography

Students are often unaware of the aesthetic qualities of the visual presentation of words. They need to have experiences that help them see the character of different type styles and how those type styles react with the texture and weight of paper. They need to develop a sensitivity to type and the spaces around it, and how these factors influence people's appreciation of text.

Typography is a special area of graphic design that is applicable in a variety of design fields. Typeface designers such as Herb Lubalin and Herman Zapf work with features of typefaces such as serif, sans-serif, x-height, ems, italic, condensed, extended, ligatures, and body-weight. Word processing and desktop publishing programs for computers have introduced people with little background in design to some of the ideas previously of interest mainly to professional designers. Terms such as italic, justification, kerning, line-spacing, letter-spacing, bold-face, drop-shadow, and so on, have become part of general vocabulary. People are learning to make aesthetic choices among palatino, helvetica, helvetica condensed, New York, and hundreds of other typefaces. Bookstores and libraries are filled with materials about type-design. *U & LC (Upper and Lower Case)* is a visually entertaining magazine about type and the type industry.

Computer Graphics

Computers have become a key tool in many art and design fields. As a result, the use of computers in art and design has spawned a new field of art



referred to as computer art or computer graphics. Art curricula should include some aspects of production, history, criticism, and aesthetics of computer art and design. Students should have some knowledge of terminology and function of computers for art and design purposes. They should be familiar with the function and capabilities of a variety of input devices such as the keyboard, mouse, graphics tablet, digitizing cameras, and scanners. They should understand output capabilities such as monitors, printers, plotters, projectors, slides, photographs, videos, and CD-ROMs. Students should have some ability to use computer software to produce art and designs. They should know the features and capabilities of software for rendering and modeling three-dimensional objects, desktop publishing, illustration, photo and video editing, animation, and graphing. They should see and understand computer images in architecture, film, animation, graphics, video, industrial design, and other applications. They should know the characteristics of computer images that appear on television, in movies, and in print. They should understand the significance and impact of the computer's ability to produce realistic moving images that simulate three-dimensional objects and events. Students should understand the implications of digital images.

Since developments in computer technology happen at such a rapid pace, many books are outdated before they reach the schools. Periodicals are one of the safest ways to get current information about computers in the arts. A variety of publications specifically about computer art and design are available in libraries, bookstores, and by subscription. Human resources can be found at colleges, universities, and technical schools; commercial suppliers; and software producers and users such as printing and pre-press companies, and advertising and design agencies.

Product Design

Industrial and Product Design

People use objects designed by industrial designers so instinctively that students are often unaware of how those objects came about. Students should have experiences that help them understand how objects are designed and created. They should have opportunities to identify poorly designed objects and show how the design could be improved. Students should learn that industrial design refers to the planning and artistic enhancement of three-dimensional industrial products ranging from lawn mowers, automobiles, and home appliances to microcomputers, radios, and furniture. The variety of products designed is endless. The industrial designer must be able to create objects that provide a function and can be economically mass-produced. Industrial designers generally oversee the entire design process from conception through fabrication to consumption.

Brooks Stevens, from Wisconsin, was one of the first and most influential industrial designers in the country. He designed a model of the Harley-Davidson motorcycle, the Hiawatha train, the postwar Willy's Jeep, and the Evinrude outboard motor. He is said to have been the first to use the term

"planned obsolescence" made infamous by Vance Packard's book *The Wastemakers*, which was critical of the powerful influence of contemporary design. Exhibits of Stevens' industrial designs have been held in museums, and a collection of his designs can be seen in a small museum in Mequon, Wisconsin.

Raymond Loewy was another famous industrial designer who created the Coca-Cola bottle and the famous Studebaker auto design. Stevens, Loewy, and a handful of other pioneering designers founded the Society of Industrial Designers.

Fashion Design

Students are often fashion conscious, and teachers can use this interest to encourage them to learn about how clothing and personal articles are designed and produced. Fashion is one of the largest industries in the United States. People spend billions of dollars annually on clothing. Fashion designers must be able to create modern, wearable clothing, accessories, and jewelry. They need to keep up with rapidly changing fashion trends. Clothing designers should possess an awareness of line, proportion, and movement of the human body. Shape, color, and texture are major considerations. Designers are able to create patterns that may be mass-produced as well as unique custom garments. Each season, clothing designers create new fashion lines that are highly publicized in the mass media. The influence of different cultures can be seen in bold new colors, Japanese kimonos becoming cocktail dresses, and three-piece women's suits of Nigerian fabrics.

In figure 9, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study and instruction of product design in elementary and secondary education.



Figure 9

Sample Conceptual Statements for Design Arts

	Primary Grades 1. The design of objects changes over time. 2. Designers make things that we need; the things they make are called products. They are designed and manufactured.	Intermediate Grades 1. Industrial design is the development of products made for people, designed by people, involving creative choices and solutions. 2. The industrial designer is involved in product design solutions to produce new products or to modify existing ones.
<i>History</i>	Compare and contrast objects that have different forms yet have similar functions: a jump rope and a jump stick, a pogo stick and a pogo ball, regular ice skates and one piece molded ice-skate boots, early 19th century and present-day bicycles.	Examine how designers make changes in the shape and function of objects such as combining a surfboard and sail to form a sailboard or roller skates and a surfboard to make a skateboard.
<i>Aesthetics</i>	Talk about how objects, such as different types of chairs, affect different experiences: drawing or painting, resting, watching television, sitting in the woods, or at the beach on a hot day.	Examine how shapes and colors of objects from other cultures are often different from objects common to our own experience (kitchen utensils, shoes, toys, house colors, colors of cars, or fashions).
<i>Criticism</i>	Present two similar objects, one produced 20 years ago, one contemporary. What physical clues (e.g., color, shape, size) are indicators that one is an older design, or that another is contemporary?	Bring in objects that are redesigned with great frequency (e.g., pens, hats, shoes, soft-drink cans, combs). Discuss how these objects have changed for better or worse; for primarily aesthetic, functional, or cosmetic reasons.
<i>Production</i>	What kinds of objects could be designed that can transport people to school, across lakes, or from one city to another? Make drawings, use mass-produced building materials, or modeling clay to build prototypes of these ideas.	Choose three objects used for the same activity and combine them into a single unit (e.g., television set, radio, and clock; compass, canteen, and flashlight; cards, dice, and timer for a game; pencil, eraser, and compass).
<i>Discovery</i>	Find a picture of an object that was designed by someone. Then make a drawing to show how you would improve the design. Display the two together.	Find someone in your town who knows how to design and make a product. Study the techniques he or she uses for designing and building and see if you can do something similar on your own.

Middle Level	High Schools	
1. Industrial designers are responsible for the quality, aesthetic appeal, and function of items consumers purchase and use. 2. Contemporary design of functional objects is affected by ergonomics (the study of how the human form interacts with the object).	1. There is always a tension between performance and style. 2. Industrial design involves ethics: concerns for safety, aesthetics, craftsmanship, quality, long-term utility, function, and resource management of energy and materials.	
Find examples of ergonomically designed objects: a standard bicycle and a custom racing bike; instamatic camera and a single reflex camera; common gloves and biker gloves.	Do an overview of various trends in design that shows the concept of change across time. Compare major ideas underlying different design movements: Step, Stream, Taper, Sheer, Sculptura, or Pop.	<i>History</i>
Compare objects that contrast pure function, and that of function and aesthetics, for example, a two-liter pop bottle and a bicycle water bottle.	Discuss why designers should practice a societal responsibility to design products that enhance the quality of life for different groups, such as utensils for people with arthritis.	<i>Aesthetics</i>
Analyze objects for their overall design and function. How do the physical elements (size, color, texture or shape) enhance or detract from the appearance and function of the object?	Debate whether our country should adopt a single design philosophy (a national style) or allow multiple philosophies?	<i>Criticism</i>
Make a model of a figure with movable joints to allow movement of appendages and head. Design objects (e.g., furniture, forms of transportation, toys, and tools) that employ ideas central to ergonomics.	Organize four to five design firms in class. Each firm should employ a particular philosophy to create products: past styles of design, conceptions of future design styles, or a pluralism of styles.	<i>Production</i>
Find out about eyesores, inconveniences, injuries, or accidents that occur around your school or town that could be reduced by better design. Create a better design to improve the situation.	Find a real design problem in your town, and then research and create a design proposal with drawings and written support materials. Present your proposal to the appropriate audience.	<i>Discovery</i>

Film and Television

Designing for film and television requires special knowledge and skills to accommodate the needs of these media. Special-effects producers such as George Lucas' Industrial Light and Magic (ILM) in California use art directors, production designers, graphic designers, title designers, model makers, matte painters, computer graphic artists, makeup artists, set designers, costume designers, photographers, cinematographers, animators, and a host of other visual artists to help produce films and videos. A look at the credits of movies reveals that many of the people involved in making a movie are visual artists of one sort or another. Many books and television programs give us a behind-the-scenes look at the work of these artists. Books on this topic are usually located in a special film section. *Cinefex* is a magazine that provides photographs and text that explain how special effects, sometimes referred to as FX, are produced for motion pictures, television, commercials, music videos, and theme park attractions. Courses in film and video are offered in some college and university art programs but generally are found in the communication arts department. Students and teachers should have a knowledge of media arts production, history, criticism, and aesthetics.



*Costume design by Kristin Jensen
With permission of the American
Players Theatre*

Theatre Design

Students should be aware that many design opportunities exist in theatre as well. They should know that theatre design involves designing sets, lighting, costumes, and props for live productions. These fields of design require advanced training in visual design and provide a wide range of career and avocational outlets in local communities and around the world. Stage productions may range from Shakespearean plays; popular musicals like *Les Miserables*, *Cats*, and *Phantom of the Opera*; regional repertory theatre; stage productions, such as Las Vegas style shows; staging for musical group tours, music videos, television, and film; or minimalist props for street theatre. John Napier, one of the top production designers, created sets for Broadway productions such as *Cats* and *Les Miserables*. A key national resource for design and production professionals in the performing arts is *TD & T*, Theatre Design and Technology, a publication of the United States Institute for Theatre Technology (USITT). All live theatre productions must secure the services of stage designers, and theatre companies like the Milwaukee Repertory Theatre and the Madison Repertory Theatre feature the work of some of Wisconsin's top designers.

Lighting Design

Lighting design is a field related to theatre design that has applications in photography, film, interior design, architecture, exhibit design, and other areas. Students dealing with light need to learn the additive color system, in which the primary colors are red, green, and blue, as opposed to the sub-

tractive color system used in painting, in which the primary colors are red, yellow, and blue. Many of the principles of lighting design are necessary to understand video, computers, architecture, and interior design. *Lighting Dimensions* is a magazine for lighting professionals that provides articles, information, and resources about the field of lighting design in a variety of contexts.

Exhibit Design

Exhibit design is sometimes overlooked by the public because one of the goals of good exhibit design is to call attention to information, products, or ideas and not to the exhibit itself. The work of exhibit designers can be seen in storefronts, airports, convention centers, trade shows, museums, and anywhere information and ideas need to be communicated visually (Velarde, 1989).

Exhibitionist is a magazine of the National Association of Museum Exhibition (NAME), a standing professional group of the American Association of Museums. *Exhibitor*, the magazine for exhibit marketing management, provides information on some of the issues and ideas behind professional trade show exhibiting. While much of the content is on management and marketing, articles also deal with topics such as exhibit design and fabrication, lighting, graphics, and materials. An international network of trade show marketing professionals, the Exhibit Designers and Producers Association (EDPA), is headquartered in Milwaukee, Wisconsin.

In figure 10, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study and instruction of the media arts in elementary and secondary education.



Figure 10

Sample Conceptual Statements for Design Arts

	Primary Grades 1. Television images and movies are designed by artists. 2. Creating moving images requires different techniques than drawing and painting.	Intermediate Grades 1. Media arts involve movement and light in ways that are different from other media. 2. We can learn to design images with light and movement.
<i>History</i>	Make a timeline that shows when movies and television started and how they developed. What were some of the first movies like? What were some of the first television shows like? Why?	Create a display that shows the development and relationships between photography, color photography, film, video, and computer graphics.
<i>Aesthetics</i>	See how many ways you can think of in which a television picture is different than a painting. How are they alike?	List and discuss the similarities and differences between artists who work in media arts and artists who work in traditional media. Are media artists really artists?
<i>Criticism</i>	Look at a television show with the sound turned off so you can concentrate on the pictures. What do you notice about the television pictures and how they change?	Select some media arts work and make a list of qualities it should have to make it the best of its kind.
<i>Production</i>	Make a pencil drawing on 8 1/2 by 11 inch paper and make a transparency from it. Color it in with transparency markers and project it to see how it looks. How can you improve pictures that are designed to be projected?	Study the techniques used to create some media art work and see if you can make a work based on what you find out. Find out why red, green (rather than yellow), and blue are called the primary colors in film, television, and computer graphics. What color do you get if you mix red light and green light?
<i>Discovery</i>	See how many ways you can make a picture on a transparency, or parts of it, move when it is projected. You might use two or more transparencies together.	Make a storyboard for a short film or video idea you create.

Middle Level	High Schools	
1. The media arts we see were created to look the way they do for specific purposes. 2. The techniques and look of media arts change over time.	1. Media arts are usually cooperative projects involving a variety of artists. 2. We can learn to recognize and appreciate quality media arts and the people who make them.	
Find out about people in your area who create media art works and write a story about them and what they do. Use drawings, photographs, and possibly, an example of their work to make a display about the people and the process they use to make something.	Select a job performed by an artist from the credits of a movie and find out some of the people who are considered the best in that field. Some may have won awards. Make a display about that job and the people who do it.	<i>History</i>
Borrow someone's home movies and analyze them to see whether you think they are art. Talk with others to see what their reasons are for saying the home movies are art or are not art.	Are movies art? Write an article in which you discuss this question. Talk to others to find out their ideas and the reasons behind them.	<i>Aesthetics</i>
Compare media art works we see today to similar works from the past. How are they alike and how are they different? Why?	Find examples in movie or television criticism where the critics talk about the visual parts of the movie rather than the story or the actors. Give examples of movies or television shows that are visually well made.	<i>Criticism</i>
Take a series of slides or make a short video with sound effects and music that demonstrate some techniques used in media arts, such as camera angles, point of view, lighting, and so forth.	Make arrangements to have someone in your school or town teach you how to shoot film or video. See how good you can get at making a movie. You may want to work in a group with each person doing a specific job.	<i>Production</i>
Make some drawings, photos, or video clips to show several ways you would redesign a scene from a film or video.	Take photos of places in your town and the surrounding area that would be good locations to film a movie. Contact the Wisconsin Film Office for ideas on what movie and video producers look for in choosing locations.	<i>Discovery</i>

References and Suggested Reading

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Introduction

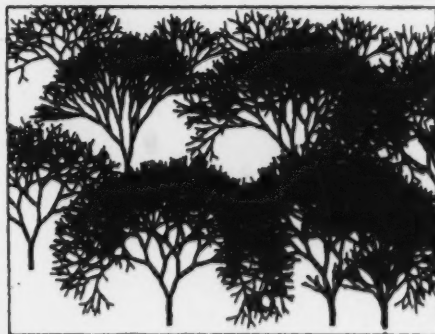
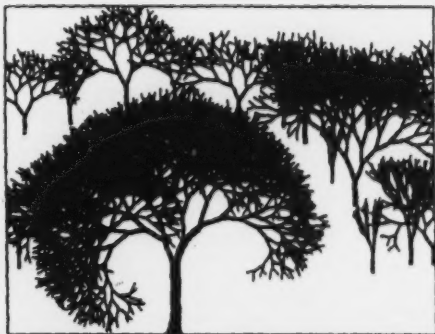
Students should have experiences in schools that prepare them to generate, identify, and solve aesthetic problems throughout their lives. For students interested in producing studio art, this would mean that by twelfth grade they should have a solid portfolio of work that demonstrates prolonged practice in their art with a consistent and insightful personal point of view. They should have participated in group shows and have had work exhibited in a juried show.

By twelfth grade, those interested in criticism, history, or aesthetics in the studio arts should have a portfolio of written work, some published, that demonstrates prolonged practice in the study of art and the ability to communicate ideas about art with clarity and insight. They should have participated in the development of an art exhibit including selecting, designing, and hanging the show, and writing the catalog.

Goals for Artistic Development

Artists draw on at least seven basic sources for continuing growth and development throughout their lives: observation, memory, imagination, innovation, interaction, reflection, and independent thinking. People who have not developed the skills to use these resources are often surprised that artists and other creative people get their ideas from the things around them. These skills may be the answer to the question often asked of artists, Where do you get your ideas from?

Curriculum in the studio arts often includes discussion of the elements and principles of art but fails to address the nature of authentic artistic inquiry. Students should be aware that art is a mode of inquiry and expression that helps people communicate ideas that could not be captured in words alone. Students should be encouraged to create works of art that reflect their uniqueness and deal with significant ideas that possess personal meaning.



Observation

Students should have regular opportunities to develop their observational skills, and one of the best ways is drawing from life. Artists know that the process of drawing reveals observations that would never have occurred by simply looking. The purpose of drawing from life is more to help in the process of careful, analytical thinking than to create a pleasing work of art. This is critical in developing a student's ability to observe, and therefore critique and analyze components of everyday life. Careful observation is essential in medicine, science, history, geography, social sciences, travel, and life in general.

Memory

Visual memory can be strengthened through exercise and practice. Teachers should remember that when students are asked to produce a drawing, many of them have had few opportunities to see actual drawings. They rely on the closest examples they can come up with, such as greeting cards, comic books, and album covers. Students should have opportunities to develop their visual memories by seeing drawings by artists such as Rembrandt van Rijn, Leonardo da Vinci, Jim Dine, Christo, and others who use drawing as a way of thinking and expressing themselves. Then students can call on their mental storehouses of such images to help guide them in creating their own works of art. Students can strengthen their visual memories by studying a scene or object and then trying to draw it from memory. In the process they will also strengthen their powers of observation.

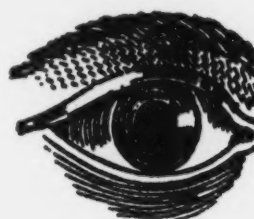
Imagination

While students are encouraged to develop their visual memories, they should also be encouraged to go beyond what they have already seen. Students often refer to drawing from their imagination when they really mean drawing from their memory. When asked to create works of art from their imagination, they should be encouraged to question if their ideas are truly imaginative or if they have been borrowed from images they have seen somewhere else. One step is to see if their ideas are the same as others in the class or if they look like ideas of some other artist or something in popular culture. If so, the students can try again to put their own stamp on the ideas.

It is very difficult to overcome the power of visual memories to develop images that are truly from one's imagination. Society transmits and imposes dispositions, ideas, and ways of thinking that people inherit and assimilate without being aware of how they limit one's ability to self-direct actions, self-determine thoughts, and sustain creative thinking. If students are not aware of the influence and power of ideas from their environment or culture, they may come to believe that the ideas are their own. Arts education can be used as an avenue for preserving and fostering the individual's capacity for creative imagination to balance the powerful socializing forces so prevalent in the process of schooling.

Innovation

Students should have many opportunities to be innovative in school, both in and out of art classes. Innovation may be one of the most difficult skills to develop and the one that students have the fewest opportunities to practice. Most assignments have predetermined expectations that allow little opportunity for true innovation by students. Many science "experiments," for example, are simply exercises in following instructions. Teaching creativity is often confused with "creative teaching." Working on a project by following instructions for a "creative" idea the teacher has developed or borrowed does not necessarily result in the development of



creative ability in students. The test of innovation is to see what students do when they are given opportunities for open-ended activities. Are they totally at a loss? Do they fall back on clichés and past learning?

Interaction

Students should have ample opportunities to learn by manipulating materials. Many artists develop artwork by receptive interaction with materials. The feel and look of clay, wood, yarn, cloth, rice paper, paint, and video screens is the source of inspiration for many works of art. This is the good sense of "materialism": to love the material for what it is and try to create visual forms that exploit its visual aesthetic potential.

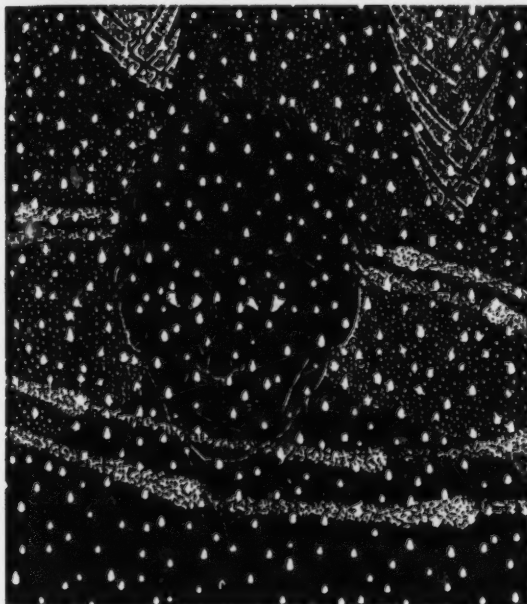
The simple wax crayon provides many opportunities for experimentation with materials. Artists have experimented with sharpening the crayon to a point for fine details, using the side of the crayon for laying in large color areas, rubbing the colors together to make new color blends, using the waxy quality of the crayon to resist paint or ink, scratching through the waxy crayon layer to reveal other colors beneath, and a host of other innovations based on the nature of the medium. Students should know that part of the task of an artist is to be sensitive to the qualities of the materials and to develop appropriate new ways to exploit the aesthetic potential of the materials in their art. Teaching students a new technique, such as crayon batik, does not necessarily teach them how to discover new techniques in the future.

Reflection

Students should have opportunities to create works of art that reflect on experiences from their own lives. They should be encouraged to think deeply about these experiences and create works that try to capture the depth of their thinking. They can assess their ability to reflect by discussing the degree to which their work provides new insights for themselves and others. Students should know that trying to show sadness in their own lives by drawing a clown crying may lack personal authenticity. Through the process of reflection, students can look at their own artwork to decide how it might be revised or redirected. They can reflect about what they are trying to accomplish and whether the methods they are using are the most appropriate.

Students need time, opportunity, encouragement, and training in reflection. Many opportunities for true experience are lost because of the failure to reflect about their meaning and significance. The difference between an explorer and a tourist is important. Too often, the tourist returns from his or her travels and fails to reflect and learn from the experiences. For the explorer, it is difficult to tell when the journey, having taken many unexpected turns, truly ends. A reflective person can find significance and meaning where others see nothing. An aesthetic experience is the opposite of "anaesthetic" experience.

Duane Brissette, Self Portrait, 1989
Color woodcut, work proof 12 1/2" x 11 1/8"
Collection of Madison Art Center
Gift of Janet Ela



Independent Thinking

Teachers must allow students opportunities to define aesthetic problems for themselves and to set their own goals. Students will not be well equipped to face a blank canvas if their educational experience has consisted primarily of doing teacher-assigned projects. Students need to have opportunities and experiences in defining an aesthetic problem and setting goals for themselves. They need to learn the process of gathering information through observation and formulating aesthetic questions. They should learn to draw on rich and diverse experiences of viewing art and different environments and be able to call on a growing storehouse of images in their minds. They need to have opportunities to exercise their skills in organizing, analyzing, creating, integrating, and evaluating to solve aesthetic problems.

Elements and Principles of Design

Art production involves aspects of *form* and *content* that should be addressed with students throughout the learning process. Content is what one wants to say, and form is how one says it.

The elements and principles of design are the perceptual tools shaping the visual forms of artistic expression. Elements of design, such as line, shape, form, color, pattern, texture, direction, value, and so on, and principles of design such as unity, variety, balance, harmony, repetition, contrast, gradation, and dominance, are concerned with the *form* given to artistic *content*. Art teachers are encouraged to include instruction in the elements and principles of design as an integral part of meaningful artistic expression. Instruction in the elements and principles of design should be a natural part of learning to communicate ideas, rather than as a separate set of skills learned out of context.

For many years formalism was the dominant mode in Western art and in art education. Formalism included the belief that the value of a work of art could be seen in the work of art itself—especially in the arrangement of formal elements such as line, shape, and color. Today, much art is more conscious of its place in a social context. This art often tries to involve or engage the viewer. Focusing on formal elements, such as the arrangement of colors, lines, and shapes, is not as useful for understanding much art today as it was in the past.

Instructing students in techniques for controlling visual form has traditionally been the focus of art instruction in which students draw from still-lives, photos, and models, or practice techniques and processes for using materials. When producing works of art, students should try to solve meaningful artistic and aesthetic problems that address the questions, What do I want to say? and What does my work mean? The elements and principles of design are the basics of visual communication in the same way spelling, punctuation, and grammar are considered the basics of linguistic communication. These basics of visual communication should be learned in the context of authentic communication and expression rather than through



skill and drill studio assignments. Students should begin with projects that have personal emotional and intellectual content and develop the forms of expression that best communicate or capture that intent.

Content of Art

Of equal importance to the form of art is the *content* of art. Content is the idea or thought behind the work of art. People who have not studied art are often confused by artwork that is not beautiful because they believe the purpose of art is to produce beautiful forms. When they see work that presents unfamiliar or unpleasant images, they conclude it is not art or, at best, it is bad art. Students should have ample opportunities to see how art is used to explore aspects of humanity and to try and make sense out of experiences, even those that may be unpleasant.

Like the elements and principles of design, there are elements and principles of artistic conception. In the art of U.S. culture, there are certain characteristics that people expect of the content an artist includes in his or her work. These are essential characteristics that determine the quality of artistic content of a work of art in addition to the quality of the artistic form. These characteristics include such concepts as authenticity, integrity, innovation, insight, and dedication.

Authenticity is the degree to which the work of art is an authentic statement springing from the combined knowledge, skills, experiences, and attitudes of the artist. That is why a copy that resembles an original in form is less valuable than the original in which the content was determined. It is also why a work done as an assignment may be less valuable than a work that comes from the artist's own needs, desires, and motivations. Authenticity is also why the ubiquitous examples of holiday art, such as snowmen and turkeys, are not considered as valuable and true as often more diverse student expressions of what winter or Thanksgiving means to them. Authenticity is why people also value drawing from life experiences rather than photographs taken by others.

Integrity, while related to the moral meaning of the word, means internal consistency. When students begin creating art, they try a variety of styles and techniques until they discover their own style or "voice." A portfolio in which the student's work lacks a common thread that tells us something about the artist is said to lack internal consistency or "integrity." The word relates to the moral meaning in that people expect others not to change what they say based on who they are talking to. Being "two-faced" is considered to be lacking in integrity, and having a body of artwork that varies stylistically with no apparent consistency signals an artist who is still searching for his or her own voice.

Innovation is a key ingredient in the studio arts. Since innovation is not universally a key feature of art, a distinction between innovation as it appears in studio art, design arts, and cultural arts is important. In the studio arts of this culture, innovation is highly valued and is determined by



Fred Stonehouse, *Untitled*, 1987
Mixed media drawing, 11" x 8 1/2"
Collection of Madison Art Center
Purchase, through Arts Midwest funds with
matching funds from Randolph and Louise
Langer fund

the degree to which the work differs from work done by other artists or earlier work by the same artist. Some modern art brings the exclamation, I could do that! If one only attends to the *form* or visual appearance of the work of art, it may be true that another artist could replicate the work. Key to much modern art, however, is the idea or the origination of the *content* behind the work. Artists explore ideas and make statements through their work. Many ideas seem simple and obvious once a solution is revealed. Innovation is not as easy as it seems.

Insight is another key ingredient of art in U.S. culture. People value works of art that cause them to notice or understand something about themselves or the world that they had not noticed or thought about before. When people experience a work of art with great insight, it is almost as though someone had read their thoughts or had seen into the future. This is sometimes characterized as being "ahead of one's time."

Dedication is a major ingredient in art, because people do not often value the work of artists who do not pursue their work over a period of time. Some artists, like Grandma Moses, start late, and other artists, like Van Gogh, have their careers cut short; but in general people expect an artist to work long and hard over an extended period of time on his or her work. People sometimes say artists "pay their dues" in the period before their work is taken seriously. The amount of work an artist does over long periods of time is also used as an indicator of such features of art as integrity and authenticity.

This discussion of principles of artistic content is not meant to be exhaustive, but it is designed to make people aware that many activities that look like "art" because of their physical *form* may not be considered art because they lack one or more of the features people value from the principles of *content* in art. These principles of content in art should be part of a student's experience in art from the very beginning, along with the more familiar elements and principles of design.



Warrington Colecott
Leroy Neiman Pulls a Screen-Print
from the History of Printmaking series, 1982
Soft-ground and aquatint, 15 1/4" x 19 1/2"
Collection of Madison Art Center
Gift of the Madison Print Club

Two-Dimensional Art Forms

Two-dimensional media are the most common forms of artistic expression in school art programs. Techniques of perspective are used to imply or represent depth on a two-dimensional surface. The ability to think and communicate in two dimensions is essential in tasks as diverse as mapmaking, graphing, architecture, signage, medical illustration, marketing, and publishing.

Drawing

All students should have opportunities to use drawing as a thinking and communication tool, just as they have the chance to learn to read, write, and speak. Drawing employs a variety of symbol systems, such as line, shape, shading, and perspective, that should be part of the basic skills for all educated people. Students should be able to communicate complex ideas through visual forms. Students should have opportunities to learn about the qualities of a variety of drawing materials and the use of line and shading in visual communication.

Painting

Painting is an opportunity for students to explore color in art and the environment. Students should have opportunities to use a variety of transparent and opaque painting media to solve visual-aesthetic problems. They should be able to differentiate and mix colors, and control depth of field through color, placement of shapes, and perspective. They should perceive how the color of objects is affected by the color of objects next to them and be able to control shading, reflected light, cast shadows, and highlights.

Printmaking

Printmaking provides opportunities to produce more than one copy of an original work of art. Students should understand the processes used in a variety of printmaking forms such as lithography, mono-print, serigraphy, etching, and woodcut. They should be able to recognize the features of each type of print media and be able to distinguish forms such as "print," "copy," "poster," and "photo-mechanical reproduction."

Photography

Photography is a special form of printmaking that involves the focused interaction of light and chemicals. Students should understand the operation of cameras (shutter speed, aperture, f-stop) and how photographs are composed (focus, depth of field, framing). They should also know the processes by which photographic prints are produced (developing, printing, fixing). They should know the principles of good photocomposition including aspect ratio, camera angle, contrast, light control, and color balance.

High school students should be able to use a fully adjustable single-lens reflex camera to take well composed and exposed photographs. They should also be familiar with the work and influence of key photographers, such as Ansel Adams, Diane Arbus, Margaret Bourke-White, Henri Cartier-Bresson, Anne Liebowitz, Duane Michaels, Edward Steichen, Alfred Steiglitz, Jerry Uehlsmann, Edward Weston, and Gary Winogrand. Terry Barrett's *Criticizing Photographs* provides examples of how to approach fine art photographs from an interpretive perspective.

Instruction in each of the studio arts is inherently driven by a framework of generalizations about aesthetics, change, communications, and interdependence. These generalizations serve as the source of concepts that are



experienced through activities with production, aesthetics, criticism, history, and discovery. In figure 11, the conceptual statements and consequent areas of study can serve to organize classroom instruction in two-dimensional art forms.



Duane Brisette, Moonrise, 1981
Acrylic on paper, 21 1/2" x 25 1/2"
Collection of Madison Art Center
Purchase through gift of Mr. and Mrs. Frederic Renfert

Figure 11

Sample Conceptual Statements for Studio Arts

	Primary Grades 1. Artists work with a variety of media. 2. Artistic media, by their very nature, are plastic and can be manipulated.	Intermediate Grades 1. People use visual media to communicate and express some perception and interpretation of their world and experience. 2. Various artistic media can be combined to construct a single object.
<i>History</i>	Use art reproductions to show how a single medium can appear differently when used by different artists over different times and in differing cultures.	Consider a single human emotion; see how different artists have expressed their personal perceptions and ideas about this emotion. To express these ideas, use not only reproductions of art objects, but also folk images, contemporary magazine advertisements, and other pictures.
<i>Aesthetics</i>	Discuss how artists make art as a special reaction to their world.	Find different ways that people communicate; consider the ways that visual media are used to accomplish this. Would some of these different forms be called art and others not?
<i>Criticism</i>	Discuss how the visual arts are made up of elements of design, such as line, shape, and color, and how artists use them in an artwork.	Consider the ways that visual elements contain and confer meaning; how does color, shape, or line present a specific emotion?
<i>Production</i>	Select from a variety of two-dimensional media (such as paint, pencils, crayon, clay, and so forth) to find the appropriate material for the work of art you have in mind.	Select from a variety of media (such as paint, pencils, crayon, or clay) to find the appropriate materials for a work of art
<i>Discovery</i>	Create a unique image based on observing your immediate environment.	Explore a variety of media to find the ones that best suit how you personally wish to communicate your observations, ideas, and feelings.

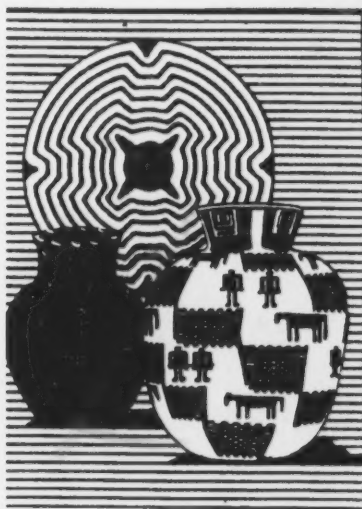
Middle Level	High Schools	
1. People who work with media plan how they will most efficiently communicate with those media. 2. Various artistic media, both two-dimensional and three-dimensional, can be used together to accomplish one visual artistic statement.	1. The visual world in which individuals live is often constructed in ways that are meant to communicate meaning and understanding. 2. Art media manipulate not only the three dimensions of height, width, and depth, but also time and history.	
Review the ways that visual ideas have been presented throughout history, and through various societies and cultures.	Invite artists to the classroom to describe their work. Write a history of the artist and his or her work	<i>History</i>
Consider why some productions are considered art and why some others are not.	Discuss the possibilities that technology and electronic media have on the forms that art becomes and takes on. Is it possible that artworks may not have to exist as tangible objects? Discuss the roles that patrons and museums play in the preservation of historic and contemporary artistic works.	<i>Aesthetics</i>
Observe bodies (a portfolio) of an artist's work rather than single examples. Discuss how the artist/producer changed and clarified the use of the materials to most effectively communicate ideas.	Watch TV commercials to consider what is the intent and technique of the visual production.	<i>Criticism</i>
Choose social issues that can be expressed through visual media. Develop a portfolio of images that evoke viewer reactions.	Make a drawing that depicts a ritual dance or celebration.	<i>Production</i>
Make a series of sketches to try to find an original way to express an idea or emotion.	Observe and record, in a journal or video format, the various ways that creatures move. Try to show the meaning of such movements in a drawing or painting.	<i>Discovery</i>

Three-Dimensional Art Forms

Students should have opportunities to develop their abilities to see and communicate in three-dimensional forms. Three-dimensional visualization is a special form of intelligence. This ability is essential in sculpture, architecture, product design, environmental design, landscape architecture, and urban planning. Like reading and writing, the ability to visualize and communicate in three dimensions is a general skill applicable to tasks as diverse as computer modeling, astronomy, physics, geometry, and engineering.

Sculpture

Sculpture is the generic term for most three-dimensional art forms. Students should learn to see and communicate three-dimensionally as part of mental development. So much of their experience is in the two-dimensional art forms that students need more opportunities to learn how to work in "high relief" and "in the round." Without instruction in these areas, students will continue to rely heavily on two-dimensional conventions. Beginning students working on a mask project, for example, tend to paint two-dimensional features rather than to build up high relief areas. The degree of three-dimensionality commonly seen in African and Indonesian art provides good examples. Sculpture materials commonly used in schools include wood, plastic, papier-mâché, foam, cardboard, metal, glass, and found objects.



Ceramics

Ceramics is a popular introduction to three-dimensional art forms because the clay is easily shaped and provides comparatively fast and easy manipulation of three-dimensional forms. Students should have opportunities to explore the three-dimensional potential of the clay and the variety of surface textures achievable in this highly malleable medium. They should know about the influences of artists such as ceramic artist Peter Voulkos, American Indian potter Lucy Lewis, and the Japanese traditions in which villages carry on individual ceramic styles.

Art Metal

Art metal, sometimes referred to as jewelry design, gives students a chance to experience working with sculptural materials on a small scale. In this way they can explore sculptural concepts without the expense and time of larger projects. They also learn elements of craftsmanship as they strive to control the quality of the shapes, forms, and textures in their work. Students should have opportunities to experience the qualities of metal fabrication and the basic principles of metal casting. They should be familiar with Indonesian and Indian metal traditions.

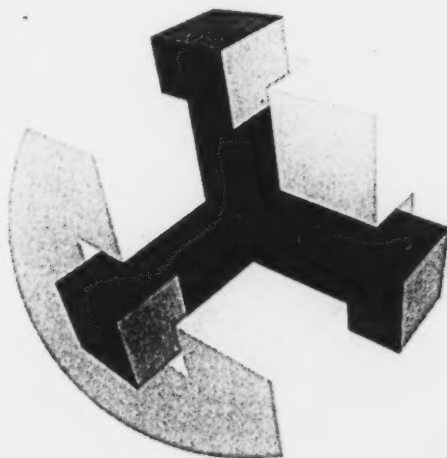
Crafts

Crafts is a loose term for a variety of art forms using materials such as wood, glass, and fibers that sprang from utilitarian or decorative origins and have developed artistically. Woodworking, weaving, glass-blowing, and basket making have their roots in skilled trades producing useful items for everyday life. But, in the hands of artists, these craft forms have transcended their utilitarian roots and achieved studio arts status. Harvey Littleton was an internationally famous glassblower from Wisconsin whose work is recognized as studio art for its innovation and aesthetic quality. Wisconsin, with its forest heritage, has several woodworkers recognized as studio artists. Frank Lloyd Wright's designs for stained-glass windows show his integration of craft forms in architecture. Many other cultures have less of a distinction between their studio arts and crafts.

Installations

New art forms are continually being developed, and "installations" are mentioned here simply to represent the development of forms of art that challenge traditional categories. An installation is a work of art that uses the space in which it is displayed as part of the work itself. Many installations blur the distinction between visual art and theatre, because the viewer is often invited to interact with the work of art. Many installations are environmental or architectural in nature and blur the distinction between architecture and art. Many installations present social issues and blur the distinction between social commentary and art. Students should have opportunities to see and discuss newer art forms to develop their tolerance and appreciation for change and growth in cultural expression.

In figure 12, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study and instruction of three-dimensional forms in elementary and secondary education.



*Marko Spalatin, Figure XX, 1974
Serigraph, 18" diameter
Collection of Madison Art Center
Gift of the Madison Print Club*

■ Figure 12

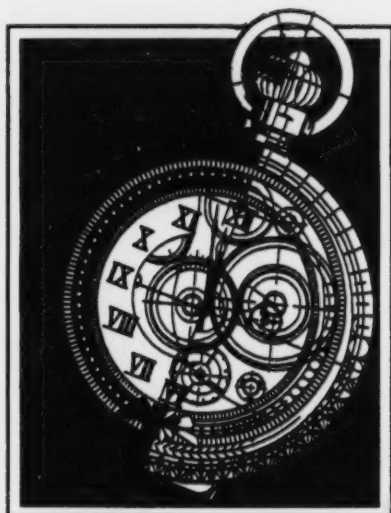
Sample Conceptual Statements for Studio Arts

	Primary Grades	Intermediate Grades
	1. Sculpture involves the visual and physical manipulation of three-dimensional forms. 2. Sculpture can result in objects that serve a utilitarian function.	1. Sculpture, as a study of volumes, can be resolved through a process of substitution (casting). 2. Our lives are made easier as artists and designers make things that will have a utilitarian function.
	<i>History</i>	Compare and contrast reproductions of sculptures that represent a particular subject matter to understand how a subject is treated by different artists and in different time periods.
	<i>Aesthetics</i>	Observe a variety of sculptures found in public places. Attempt to determine what the three-dimensional representation means and why it has been located where it is.
	<i>Criticism</i>	Look at variety of manufactured functional objects. Use them to determine which are successfully designed.
	<i>Production</i>	Go to a beach, park, or playground and make plaster-sand castings of impressions found or made in the sand.
	<i>Discovery</i>	Talk to a designer of utilitarian forms. Especially ask about the source or sources of ideas that are translated into objects.

Middle Level	High Schools	
1. Sculpture, as a study in volumes (three-dimensional forms), can be resolved through a process of subtraction. 2. All cultures throughout time have made objects that serve particular needed functions.	1. Sculpture, as a study in volumes, can be resolved through a process of addition (fabrication). 2. Even the environments in which we live, work, study, and play can be viewed as utilitarian volumes that have been manipulated in ways that make them more efficient, visually interesting, and (or) effective.	
Review a collection of sculptural reproductions and attempt to put them in chronological or stylistic order by observing the ways they develop a sense of space and volume.	Investigate ways of joining materials and consider how artists over time have used these technologies to construct pieces of sculpture.	<i>History</i>
Discuss why utilitarian forms can be considered art objects. Consider some of the applications of the Bauhaus movement or the work of Brooks Stevens.	Consider how the landscape is a constructed environment. Determine the difference of the planned and spontaneous landscape.	<i>Aesthetics</i>
Go to a museum and find objects from various cultures that serve the same general purpose. Consider how and why these objects have differing appearances.	Look at the different ways that volume can be represented in additive sculpture. Compare the effects of these different representations.	<i>Criticism</i>
After studying functional objects from a variety of cultures, make an object that serves a function and is, at the same time, aesthetically pleasing.	Construct, using a process of fabrication, a mural or free standing sculpture for a public location on the school grounds.	<i>Production</i>
Objects from other cultures can serve as a stimulus for things made by contemporary artists. Search through museum and private collections for ideas about form and design.	Study the work of cartoonist Rube Goldberg. Then, with a collection of unusual and dissimilar objects, try to "invent" a new solution to an old problem (e.g., a mouse trap, an alarm clock, or a garage door opener.)	<i>Discovery</i>

Four-Dimensional Art Forms

Four-dimensional (nonstatic) art forms are those that actively involve the fourth dimension—time. Art forms that change over time are not *looked at* so much as they are *watched*, leading the viewer through a progression of temporal experience. Some art works, such as Alexander Calder's mobiles and Yves Tanguy's surrealist works, are designed to include movement as part of the visual repertoire of the work. Art forms such as film and video have movement as an integral part of their nature. They have some compositional characteristics, such as shot sequence, pacing, mood development, and scene juxtaposition, that are not as common in other art forms. Four-dimensional art forms include mobiles, performance art, film, video, animation, and some computer graphics.



Film and Video

Film and video are a major part of the visual environment for most people in the United States and around the world. Students should know the structures and techniques of film and video production so that they are better equipped to understand how these forms influence their lives. Although they were only introduced in 1983, home video cameras have become commonplace in society. Several television programs feature video shot by amateurs with their home video cameras. Film and video making and the study of film and video involve the use of technical and structural elements and different levels of meaning. These vary according to the genre or type of film, such as horror, animation, science fiction, love story, western, propaganda, documentary, musical, comedy, or war.

Technical and structural elements include the shot, camera angle, lighting, color, sound, and structure. Students should be able to recognize visual and aesthetic impact and use of different types of shots, including panoramic, extreme long shot, long shot, medium shot, close-up, and extreme close-up. Students should be able to recognize and use the visual and aesthetic impact of camera angles, such as eye-level, high angle, low angle, bird's-eye view, and oblique angle (tilted). They should understand and be able to manipulate lighting qualities, such as bright lighting, contrast lighting, low key lighting, light from above (halo effect), light from below (eerie look), half lit (symbolizing the unknown), and back lighting (silhouette). Students should understand and be able to manipulate color effects, such as natural, unnatural, symbolic, diffused, and saturated. They should understand and know how to use elements of the design of sound, such as music, natural sounds, invented sounds, voice, and dialogue. Students should be able to recognize and use elements of structure in film and video, such as editing, theme and variation, reoccurring elements leading to development of plot, character, and unity or disunity.

Levels of meaning in film often include at least two levels—the explicit and the implicit. The explicit meaning of a film can sometimes be summarized by the plot or story line. However, the particularities of the plot or story may carry a broader message about society or related issues. This is the implicit meaning. Dreams, for example, while having very explicit scenes, are often about some fear or anxiety quite unrelated to their content.

Composition and design of the film image are key factors in setting a mood or communicating an idea. In classic composition, there is an effort to create a balance through colors, shapes, textures, and lines. *Mise en scene* uses lack of balance to create a sense of insecurity or isolation. The use of space in a scene can create a variety of moods. The distances may be intimate, personal, social, or public. Camera movements such as panning, tracking, or arcing can create a sense of dynamics or establish a tempo for a scene.

Performance Art

Performance art is a hybrid art form that can be a combination of visual art, theatre, dance, movement, social interaction, music, comedy, and writing. It challenges traditional notions of frame, space, and medium in the visual arts by causing viewers or participants to question where and when the work of art begins and ends, and whether or not it is visual art. Performance artist Laurie Anderson's use of multimedia, music, theatre, and social comment in her performance art pieces exemplifies this art form. Artists such as Laurie Beth Clarke in Madison, and Mark Anderson in Milwaukee are leading contributors to the performance art field in Wisconsin.

Digital Media

The advent of computers introduced digital media in which images are converted into digital information that can be stored, transmitted, and altered in ways not possible with conventional media. Computer graphics, quick-time videos, and digital photography present creative processes never before available. Digital images can be edited, morphed, combined, and distributed in unique ways that virtually create new art forms.

In figure 13, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study and instruction of four-dimensional art forms.

Figure 13

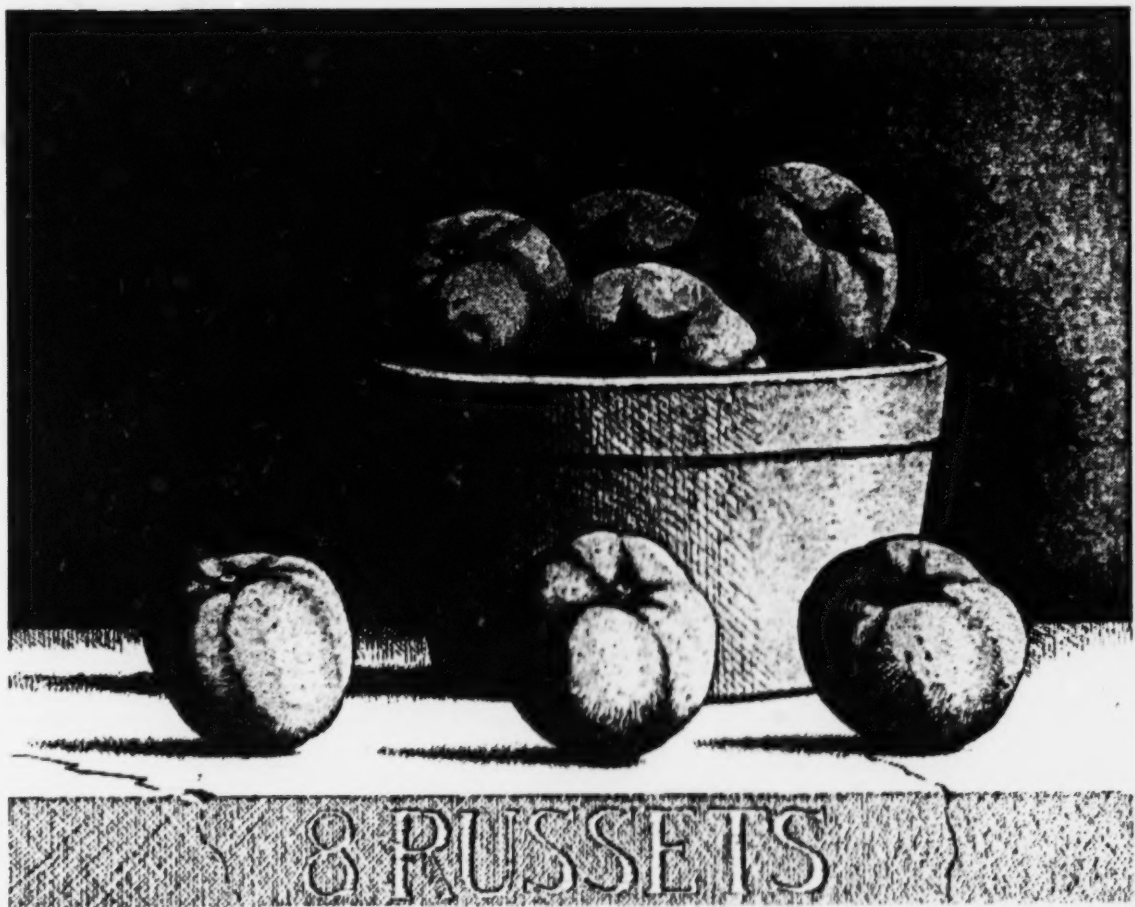
Sample Conceptual Statements for Studio Arts

	Primary Grades 1. Motion can be implied in a flat image when artists want to use their work to tell an ongoing story. 2. Artists often use motion to depict events that exist in the real world.	Intermediate Grades 1. Animation is a form of art that appears to permit objects to possess motion. 2. Motion shown in art objects need not be limited to only human or animal movement.
<i>History</i>	Look at book illustrations and animated films to see how artists have shown motion.	View a number of animated films that feature the same character. Talk about how the characters might change over time, for example, Mickey Mouse from "Steamboat Willie" to present films.
<i>Aesthetics</i>	Discuss why something can or cannot be art if it changes?	Discuss how art works are often symbolic in nature.
<i>Criticism</i>	Discuss the various ways artists use visual elements of design to suggest motion. Consider which are more successful.	After viewing a short cartoon, talk about the importance of sequence in image and ideas.
<i>Production</i>	Construct a flip book to give motion to characters and images.	Make an animation using computer technology and available software.
<i>Discovery</i>	Act out a variety of different ways that creatures move (i.e., animals, people, robots). In turn, these actions can be translated to other dimensional forms of art.	Consider what the movement of water or the wind might look like if depicted in animation.

Middle Level	High Schools	
1. Film in theatres or on television is an art medium. 2. Motion can be given to static objects, thus giving them life-like qualities.	1. Art can be staged and choreographed events that involve more than the lone sense of sight. 2. Motion can be used to create a surreal environment, one that is only known to the artist.	
Look at reproductions to see how early civilizations depicted the wind, the seasons, or other nonliving conditions.	Study the histories of performance and process art. What are their origins?	<i>History</i>
View segments of a Walt Disney movie in the theatre or on television. Discuss the ways that they are or are not art.	Look and listen to the work of a performance artist. How does his or her work expand your ideas about the nature of art?	<i>Aesthetics</i>
Stage a classroom "Academy Awards" program. Develop criteria that determine the kind of films to be included and how they should be scored.	Participate in a performance artwork. Consider the traditional elements and principles of design in this work.	<i>Criticism</i>
Make your own short-length movies. Consider various taping techniques, such as framing, depth of field, stop action, straight motion, and animation.	Create a group project that visually interacts with the immediate environment as a way to express your connection and reaction to it.	<i>Production</i>
Describe a story or event through a storyboard. Begin with a photograph and develop the story sequence from that point.	Look at aspects of your life and environment to see how these might be incorporated into a piece of artwork that moves in response to viewers or the environment.	<i>Discovery</i>

Reference and Suggested Reading

Barrett, Terry. *Criticizing Photographs*. Mountain View, CA: Mayfield Publishing Co., 1990.



John Wilde, *8 Russets*, 1987
Color Etching, 86/100, 15 1/2" x 19 1/2"
Collection of Madison Art Center
Purchase

7



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From Curriculum and Instruction to Content and Learning

Until recently, educators customarily thought planning for learning consisted of curriculum, instruction, and assessment. Each of these terms have the connotation of being teacher directed and pre-planned without input or consideration of the interests and abilities of students.

"Curriculum" came to imply a narrow, predetermined selection from the vast pool of potential content available. The selection of approved curriculum content was determined by curriculum task forces, teachers, textbook publishers, and (although not in Wisconsin) state education agencies. As national standards were developed in each of the content areas, it became clear that there is a much broader range of content than most schools or teachers were prepared to offer. Educators began thinking of the potential of education in terms of open-ended "content" for learning rather than prescribed and limited "curriculum." Scope and sequence, in this view, begins to become broader and more flexible to meet the needs of the students, community, and general learning context.

"Instruction" came to imply what teachers do to students. It was typically determined by teachers and directed to all students as a group. "Learning" is a term that more closely captures the idea that students are an integral part of their own educational process and that teachers need no longer be the primary source of "instruction." Learning, as opposed to instruction as a concept for planning education, is more student directed, less standardized, and broader in potential scope. Individual students will not cover as uniform a range of "essential" or "core" learning but will, taken as a whole, address more of the content of disciplines as outlined in national standards. A class of 25 students, for example, could potentially address 25 times as much of the content of the national standards as the same class in which all students study the same content at the same time.

Moving from "curriculum and instruction" and "scope and sequence" to "content and learning" means that educators have to reconsider the common practice of standardizing assessment. If students are learning different parts of a broader range of content, then assessment can no longer focus on a standardized set of narrow topics for all students. Alternate assessment procedures need to be used that adequately capture the depth of learning that occurs for each student. Portfolios, demonstrations, and performance measures seem more appropriate for this type of learning than more standardized paper and pencil measures. Paper and pencil measures, of course, can also be developed to measure individual learning, so they can also be used effectively to capture some aspects of learning in this emerging model of content and learning. Journals and achievement history questionnaires, for example, could be considered appropriate paper and pencil measures for content and learning. Assessment is discussed in more detail in chapter 10.



*Children's Book Illustration
by Rochelle Robbin*

Early Childhood Education

One of the key features of early childhood learning is that it should be based on having the child gain a broad range of experiences in observing and interacting with the world. Teaching specific information and evaluating student performance should be minimized while providing the greatest opportunity for students to manipulate materials, interact socially, draw, paint, build things, and puzzle over the wonders of the natural and built environment.

There should be no rush to have the child memorize the alphabet or learn number symbols before he or she has learned the concepts of number and letter through experience with the world. It has been said that playing is the work of the child. It is through opportunities for interacting with building blocks, trying to balance structures, learning about force and gravity, handling simple and complex forms, touching a variety of textures, seeing a variety of images, and creating a variety of forms that children's brains develop the synaptic connections that allow them to apply abstract symbols later in life.

Frank Lloyd Wright was fond of recalling the Froebel blocks he played with as a child and makes the connection between those early childhood experiences and his ability to create complex architectural structures later in life. He said that the learning he experienced as a child playing with those blocks was still in his fingers when he designed buildings as an adult.

Elementary Arts Instruction

Standard (L) of the *Wisconsin Educational Standards* (Wisconsin DPI, 1991), included in appendix D, outlines what is required of school districts in Wisconsin regarding instruction. At the elementary level, students in Wisconsin public schools must have arts instruction each week for the entire year at every grade level by or under the supervision of a certified art teacher with sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the district curriculum. Whenever possible, art teachers should work in cooperation with classroom teachers to develop an integrated program of instruction in which the classroom teacher supports and augments the art teacher's curriculum plan. Natural areas to integrate art-related learning include reading, language arts, and social studies. Students should undertake reading, writing, and social studies learning activities with the classroom teacher that support the production activities in the art program and also meet the curriculum and instruction needs of the classroom teacher (NAEA, 1993).

Vincent Lanier's *The Visual Arts and the Elementary Child* provides examples of integrated units. Another example of an integrated unit is Dream-Makers. The Crayola Dream-Makers program is designed to encourage the conceptual and creative development of children in grades K-6. The Binney and Smith Company (see resources in appendix G) has developed a teachers' guide with curriculum-related ideas that encourage students to think creatively through art activities. A different theme is used each year and students have the opportunity to display their art work in an exhibit that travels to colleges and universities throughout the United States and Canada.



By Jessica Johnson
with permission of the Hamilton
School District

Some expectations for elementary school students include

- the ability to come up with their own idea for a work of art, select appropriate materials, and complete the work.
- examples of artwork appropriate for the student's developmental level that are ready to be exhibited.
- a portfolio of artwork that shows the ability to use art materials to express ideas.
- the ability to find and use resource materials appropriate for the student's developmental level to learn about an artist, process, or work of art.
- recognition of the existence of art from many lands and across time.
- awareness of the visual environment and understanding of the variety of visual forms in studio art, design art, art and society, and visual learning.
- the ability to talk or write about art in language appropriate for the student's developmental level.
- a sketchbook/journal with drawings, clippings, and writing appropriate to the student's level of development, including observations and ideas.
- experience in preparing a work of art for exhibition.
- the ability to use a variety of art materials and processes for drawing, painting, printmaking, sculpting, modeling, building, and filming.

Al Hurwitz and Michael Day's *Children and Their Art: Methods for the Elementary School* is a standard resource for elementary educators.

Middle-Level Arts Instruction

At the middle level, students should have instruction each year to provide the important link between elementary and secondary learning experiences. Middle school students experience greater physiological, emotional, and social growth than at most other times in their lives (Smelzer, 1991). Students at this age focus on their maturing selves in relation to others. At the same time, they often enter a new educational system designed to bridge the gap between elementary school and high schools.

Recognition of the special needs of middle-level education developed over twenty years ago, and a great deal of research and writing has addressed issues of curriculum, scheduling, and grade-level configuration.

Some expectations for middle-level students include

- the ability to come up with their own ideas for a series of works of art related to each other that explore a theme or idea.
- the ability to use a variety of means of visual expression including drawing, painting, printmaking, sculpting, modeling, building, photography, film, video, and computers.
- a portfolio of artwork that shows the beginning of an individual style and a line of visual inquiry initiated by the student.
- an ongoing sketchbook/journal with drawings, clippings, and writing that includes observations, ideas, and information about art and artists.
- examples of the integration of visual thinking and communication skills in other learning contexts such as science or social studies classes.

- the ability to find and use multiple resources to research an original idea about art or design.
- the ability to approach an unfamiliar and challenging work of art and apply powers of description, interpretation, and analysis to understand the work.
- the ability to express ideas about art and design in clear and appropriate language.
- the ability to write a clear and compelling essay about a topic in art or design.
- the ability to mat and frame works of art and put together an exhibit.

Rethinking Middle School "Exploratory" Courses

The concept of "exploratory" courses at the middle school level may inhibit student learning. One of the problems with a system of instruction that forces students to change subjects at regular, brief intervals is that it may not allow them to get far enough below the surface of a subject area to see the natural connections to real-life situations and the multidisciplinary nature of learning. If, for example, students only have nine weeks of art instruction, it is unlikely they will have an opportunity to understand that art has a technical, cultural, and temporal context that relates to history, geography, science, technology, literature, environment, politics, careers, and so on.

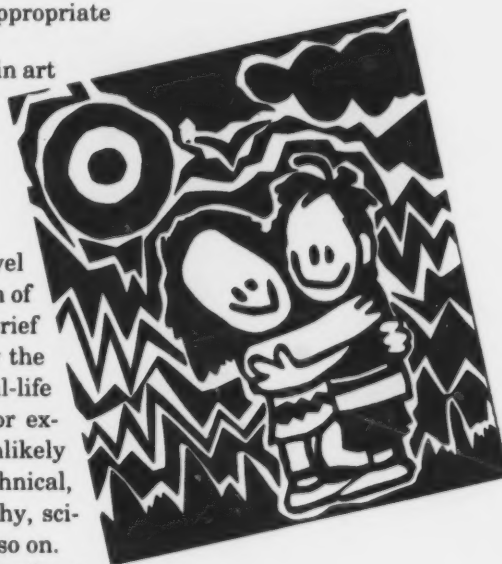
Exploratory courses, as they are narrowly envisioned, do not always allow students to form their own mental discipline and direction of study. Students who express an interest in some area of study and have identified their interests and abilities in the previous six or so years of school should not be prohibited from exploring their interests and functioning as true learners. Forcing short-term sampling as an educational philosophy at the middle school level may damage the desire to develop a capacity and desire for lifelong learning in students at a critical juncture in their educational development.

High School Arts Instruction

Instruction must be available for all students each year they are in high school. High school students should have a minimum of two years of study in the arts before graduating. Since the arts have been recognized by state and national goals as an integral part of the education of all students, two years of instruction at the high school level would be comparable to the minimal requirement for other important subject areas. Students who study the visual arts should have the opportunity to elect two-dimensional and three-dimensional production-based courses in studio and design arts or practical courses in art history, art criticism, and aesthetics. They should also have opportunities for integrated study of visual learning with other subject areas.

Some expectations of high school students include

- a portfolio of work created over time that demonstrates a personal style in a variety of forms.
- a record of having work exhibited in juried art exhibits.



*By Jason Kautzer
with permission of the Hamilton
School District*

- a comprehensive understanding of periods of history, styles, and significant individuals in the studio and design arts.
- knowledge of artists, studios, galleries, museums, and related local and state arts industries and institutions.
- the ability to read, comprehend, and discuss articles and books about art.
- examples of written work about production, history, criticism, aesthetics, and discovery in the studio arts, design arts, and art and society.
- an ongoing sketchbook/journal.
- experience in designing and hanging an art exhibit.
- awareness and understanding of art issues and events in the news.
- a record of involvement with local art organizations or events.

Time Allocations

No number of minutes of instruction are required for any subject area in the *Wisconsin Educational Standards*. Standard (L) states that instruction must be in sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the curriculum plans. The *minimum* recommended instructional time in art for students in grades K-6 is 100 minutes per week. In grades 7-8 *minimum* recommended instructional time is one semester each year. In grades 9-12 the *minimum* recommended instruction is two full terms (years) of instruction.

As general knowledge and information continues to grow at an exponential rate, teachers are faced with the problem of finding time in the curriculum and the school day to include everything expected of them. Some instructional approaches to dealing with the ever-expanding curriculum include the following:

Trashing means that some parts of the curriculum are simply thrown out. A pet project that does not really contribute to the goals of the curriculum may have to be eliminated. Knowledge and skills needed in the past may not be as necessary today. Most computer users in art do not need to learn programming, for example, because of the abundance of available software.

Compiling means that teachers can integrate parts of instruction presented at different times in different classes to save time and avoid redundancy. Providing background on the social and cultural climate surrounding the development of surrealism, for example, can be reduced by integrating instruction on surrealism with a class on world history that discusses the social and cultural impact of the industrial revolution.

Compressing means that the rate of delivery can often be increased without loss of understanding or retention. Speed readers, for example, can learn to read and comprehend written material at faster rates. It has been found that audio tapes can be listened to at compressed speeds without loss of comprehension or retention. Instruction in art can also be compressed in some areas. Students growing up with television and video games are accustomed to negotiating high volumes of information at high speeds. They may actually lose concentration if material is presented too slowly. People may enjoy looking at scenery out of a car window, but they still usually fly to California.

Multi-tasking refers to the idea that students can perform more than one operation at a time. They can work with their hands on a piece of art, for example, while listening to discussion about the history of the art form. Students are accustomed to having several forms of input at once and, in some cases, it has been found that performance actually improves when more than one part of the brain is active at once. Research has shown, for example, that students' memory of written material improves when they listen to certain types of music while reading.

Parallel Processing is the idea that not all students need to be engaged in the same task at the same time. A unit on printmaking, for example, can have some students working on linoleum block printing, while others are working on serigraphy, mono-prints, collographs, potato prints, etchings and lithography. In this way, each student gets to learn the nature and process of one form of printmaking while seeing other forms of printmaking going on in the same room.

Networking is the idea that the teacher is not the only one in the room, school, or community that "has the answers." Teachers sometimes lament that they cannot cover all the material and get to every student in class. Parents, other teachers, community members, and students are all partners in the learning enterprise.

Lifelong Learning

One of the best measures of success of schooling is whether or not people have developed a love for ongoing education. It is clear that the rapid pace of change in the world requires education to continue beyond high school, the workplace, and even college. People are finding that they need ongoing learning opportunities to keep up with changes in the workplace, and many can expect to change jobs several times in their lifetimes with commensurate retraining.

Developing the habits of lifelong learning requires that schools consider ways to help students take some ownership and responsibility for their own education. From their earliest encounters with schooling, students should have opportunities to discover and pursue areas of compelling personal interest. Too often, in the name of covering the curriculum, student learning is short-circuited and truncated by the relentless system of "cells and bells." A regular pattern of having natural curiosity aborted because of the perceived need to move on to new material sets up a passive and sometimes passive-aggressive learning climate in the schools. Too many students are putting in seat time because their interests and needs are not being addressed in the schools.

Teachers can foster lifelong learning in students by modeling lifelong learning themselves. Conducting teacher initiated classroom inquiry is one way to model learning for students. Teachers can use their classroom as a laboratory for making observations and testing hypotheses. They can learn to identify a researchable question and design a research strategy, do a review of literature on the topic, make observations and collect data, and interpret the results. This process helps improve instruction, keeps teachers mentally engaged in the learning process, and models lifelong learning for students.



*Sketch by Vincent Price
With permission of the Wisconsin
Alliance of Artists and Craftspeople, Inc.*

Changing Role of Art Teachers

One of the hardest things for teachers is to give up their role as the sole source of knowledge, ideas, and information. A growing body of research shows that students learn best when asked to solve open-ended problems that interest them, challenge them, and invite them to develop and use knowledge in new ways. Teachers must become willing to act as learning facilitators rather than disseminators of information. Too often in preplanning instruction, teachers have already done the important learning on their own and the students have little to do but listen to what the teacher learned in preparing the lesson. Teachers, for example, go to libraries, look at resources, brainstorm, develop ideas, and do a whole host of intellectually stimulating activities in preparing a lesson. In doing so, they often not only exhaust themselves but cut students off from the same invigorating intellectual inquiry that got the teacher excited about the project in the first place. Too often, instruction is like watching someone else's slides of his or her trip rather than taking the trip oneself.

Some changes in instruction have begun, such as switching from covering many topics superficially in a course to covering fewer topics in-depth. This is often the case with a thematic approach. But this approach is still problematic if the choice of topics or themes is always made by the teacher and seldom by the students. When students do get a chance to select topics, too often they vote on the suggestions of other students and end up pursuing someone else's idea of a good theme rather than having the freedom to pursue their own interests. Educators must work together to develop ways in which individual students can pursue their own themes and are allowed to develop habits of true scholarship.

Approaches to Instruction

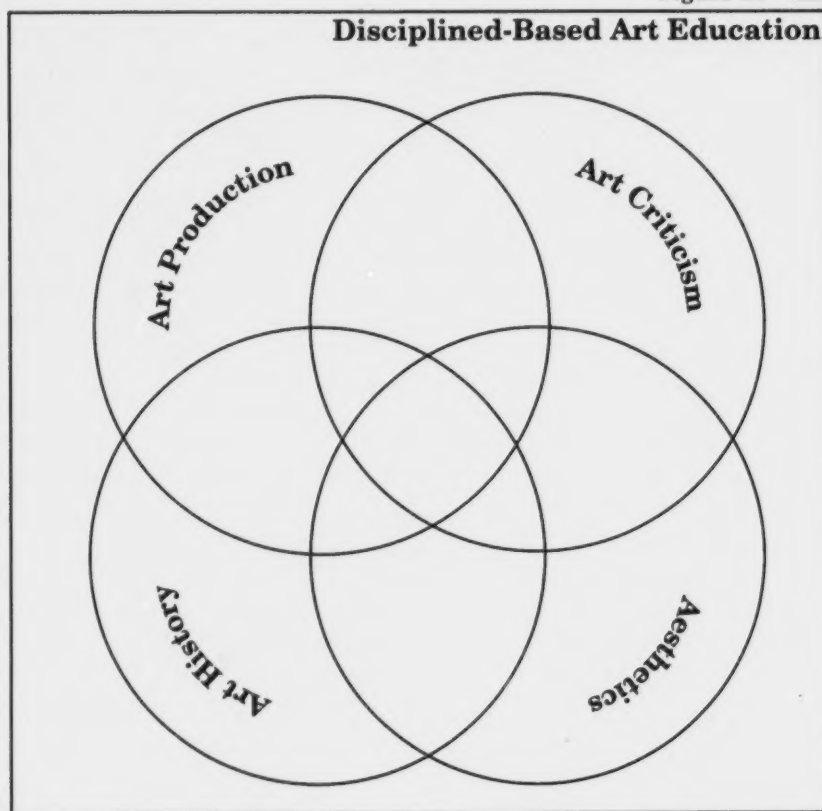
Discipline Based Art Education

Discipline Based Art Education (DBAE) is a comprehensive approach to art education that draws on four foundational art disciplines for its instructional content: art production, art history, art criticism, and aesthetics. DBAE theory was developed by the Getty Center for Education in the Arts in the early 1980s (Getty, 1985). The term "discipline" is used here to indicate a field of study with a recognized body of knowledge or content, a community of scholars who study the discipline, and a set of characteristic procedures and ways of working that facilitate exploration and inquiry.

The DBAE approach assumes recognition of critics, aestheticians, and art historians, as well as artists, as acceptable role models for the study of art. Some art educators and artists who favor the studio model of art education feel these are not appropriate models and that the producing artist is the best role model for art education. Most of the ideas that gave rise to DBAE, however, had existed in the literature of art education for

more than 25 years before DBAE. Teachers generally agree that students should acquire knowledge about the contributions artists and art make to culture and society (art history); understand how people justify judgments about art objects (aesthetics); be able to respond to the properties and qualities that exist in visual forms (art criticism); and be able to produce works of art (art production). Kay Alexander (1991) and Michael Day's curriculum sampler of discipline-based art education is a good source for ideas about how to teach through a discipline-based approach.

Figure 14



Aesthetics

Aesthetics is a branch of philosophy that focuses on the nature of beauty, the nature and value of art, and the inquiry process associated with such reflection. Students are guided in developing their ability to reflect on their experiences and evaluation of art. They examine issues regarding appreciation and interpretation, critical evaluation, artistic creation, and cultural context. Two basic questions in aesthetics are, What is art? and How does one determine quality? From the very first time students enter an art class, their unspoken question is, *What is art?* Whatever they experience in that class may become their lifelong answer to that question.



The Four Horsemen of the Apocalypse
Woodcut by Albrecht Dürer

Related aesthetic questions include, Where does art come from? and How does art get selected to be in a museum? Students are guided to apply rules of logical argumentation, philosophic methods of inquiry, and aesthetic problem solving. Students focus on the work of art as an object, interpretation and appreciation of works of art, critical evaluation, the creative process, and the cultural context. They learn to identify sayings such as, "Beauty is in the eye of the beholder" as a reflection of a subjective theory of art in which it is believed that the qualities of a work of art reside in the viewer. They examine other aesthetic theories that place the determination of quality with the object (formalist), with the artist (intentionalist), or with the arts institutions (institutional theory) (Lankford, 1992).

Communication in aesthetic inquiry typically takes the form of reading, writing, speaking, listening, seeing, and doing. Aesthetics, art history, and criticism should not be equated only with talking and reading. Some useful games and activities to get at issues in aesthetics are included in the Meld Games developed at Kutztown University in Pennsylvania. The Token Response game has students place tokens that reflect their reaction to works of art in a gallery or museum. A paper cutout of a light bulb, for example, is placed next to the work of art that the student thinks has the best ideas. A paper cutout of a heart shape represents the work the student likes the best; a green rectangle stands for most expensive; a house shape is the one the student would like in his or her home; a yellow "yuk" triangle is the one the student likes least; and so on.

Meaning, interpretation, definition, and classification are very important to people. They become emotionally involved over aesthetic issues. Legislators try to pass laws to control aesthetic choices. People write angry letters to newspapers about a new public sculpture or the design of a new building. Friends will not speak to each other because of a disagreement about the aesthetic quality of a movie.

With all of this heat, there is sometimes little light. Since most Americans have not had art instruction since sixth grade, the level of public discourse about the arts seldom gets past some variation of "I like it" or "I don't like it." In trying to talk about the arts, people often make the mistake in logic of turning the idea that there can be more than one acceptable solution to an aesthetic problem into the fallacious idea that there are no wrong answers in art. They sometimes make the logical error of turning the idea that art can spring from any source into the mistaken conclusion that everything is art. Students and adults have had little opportunity to learn how to think carefully and clearly about the arts and to express their ideas coherently and persuasively. This is the role of aesthetics as a part of art education. Some sources for ideas about teaching aesthetics include Ellen Dissanayake's *What is Art For?* and *Homo Aestheticus: Where Art Comes From and Why*; Louis Lankford's *Aesthetics: Issues and Inquiry*; and Marcia Eaton's *Basic Issues in Aesthetics*.

Art Production

Artists exercise special kinds of intelligences in choosing and applying materials to produce works of art. These special intelligences of seeing and doing should be recognized as basic skills for learning and communication, along with reading, writing, speaking, and listening.

The methods, principles, and practices of art production in the studio arts, design arts, and art and society may be somewhat different. The rule of thumb is to use practitioners in the field as models for developing learning activities for production in a given field. Art production activities should mirror as closely as possible the ways artists think and work in their field. The question curriculum developers need to answer is, How would an artist in this field approach this problem? Take, for example, students studying architecture by examining their own school building to find out what works and does not work in terms of design. After doing some historical research, critical analysis, and aesthetic decision making, they meet to decide on a production oriented response to their study. One of the first ideas that might come up is to paint a mural in the hall. The problem with this choice is that it is a two-dimensional thinker's approach to a three-dimensional problem—a painter's response to an architect's question. The students should be challenged to set aside their years of work in painting to discover how an architect's approach might be different. In this way they will come to understand more about architecture and the modes of thinking used by architects.

Many people do not have the basic skills necessary to communicate ideas or feelings visually. They are limited to a narrow range of verbal, mathematical, and scientific symbol systems to communicate important information. The purpose for instruction in art production is to provide people with a means to communicate information and ideas when words just do not seem to do it (Zurmuehlen, 1992).

Art History

Art history is a record of art in which information is gathered, interpretations made, and judgments rendered about art objects, artists, and conceptual influences on works of art. Art history is the study of works of art as historical documents. Students are guided through analysis and interpretation of attribution (Who did it?), provenance (Where did it come from?), style (What does it look like?), symbols (What does it mean?), and function (What is it for?).

Rather than rote memorization of dates, names, titles, and places, art history should be active, hands-on learning using the skills and tasks performed by art historians. Students should be involved in processes such as acquisition (obtaining works of art), de accession (returning works of art), conservation (preserving works of art), exhibition (displaying works of art), and cataloguing (documenting works of art). These activities are far from passive and usually involve group process and cooperation (Fitzpatrick, 1992).

One successful art history approach called "Mini-Museum" was introduced in Wisconsin at the Madison Art Center. In this approach students visit an art museum not so much to see the exhibit but to interview the people who work at the museum and learn what their jobs are. The students then plan an exhibit of their own and perform all of the functions of an art museum staff, such as deciding on a theme, selecting the works of art, researching and documenting the artwork, hanging the exhibit, preparing exhibit text and graphics, writing an exhibit catalog, publicizing the exhibit,

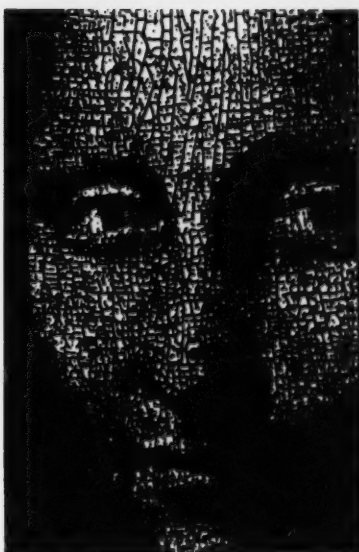


A motif common to the Kwakiutl Indians of the Northwestern part of the United States and Canada.

training student docents, providing student docent tours, and ensuring the security and safe return of the artwork.

The study of art history should also help support development of students' critical thinking skills. Through the study of art history, students should understand some of the meanings, significance, and influences of art styles. Many people would like to have a better understanding of modern art, for example. A first step toward gaining some understanding would be to look at some of the work and learn something about the people, places, and motivations behind the work. Modern art includes many diverse styles, such as abstract expressionism, abstract formalism, art deco, art nouveau, Bauhaus, color field, constructivism, cubism, dadaism, DeStijl, earth art, expressionism, fauvism, futurism, kineticism, minimalism, new expressionism, post expressionism, new impressionism, new realism, op, photo realism, surrealism, and symbolism. Without memorizing names, dates, and places, students should have some sense of this diversity and the ideas behind the work as a basis for meaningful discussion (Brommer, 1993).

Americans generally have scant knowledge of the historical value and influence of the arts. The role of artists and artwork in people's own communities often goes unnoticed. Students do not get the joke when famous works of art are used to make a point in commercials, movies, or TV shows. The role of instruction in art history is to link people to their past so they can design a better future.



Art Criticism

Art criticism addresses meaning and significance in works of art, and usually examines artworks in the context of contemporary attitudes and values. An art critic typically uses language to articulate visual imagery and experiences. Teachers guide students in developing skills of criticism to derive meanings and qualities of works of art to help determine their value or significance. Students are introduced to basic approaches to making informed judgments about artworks and other elements of the visual-aesthetic environment. Students progress from relatively simple descriptive writing and talking about art to more complex interpretation and analysis (Cromer, 1992).

Edmund Feldman's (1970) approach to art criticism consists of four steps: description, analysis, interpretation, and judgment. *Description* is the process of becoming aware of elements in a work of art by taking inventory of what is visible in the object. The goal is to do a complete and neutral inventory of features of the artwork that does not include interpretation or judgment. Without revealing feelings or preferences, the viewers try to describe the shapes, colors, spaces, volumes, artistic techniques, and other features of the work of art. Unlike some earlier approaches, this technique presumes the viewer has some knowledge of the processes and techniques of design and production but does not bring in historical or literary information that is not visible in the work.

Analysis is a description of how features in a work of art relate to each other. Here the viewer begins to notice the structure and composition. Comparing the elements and principles of design can tell the viewer about

emotion and ideas. But, again, every effort is made to relate the analysis to what is visually part of the work.

Interpretation is the process of becoming aware of the meanings in the work of art by identifying themes, ideas, and emotions. The viewer brings together information gathered during the descriptive and analytical stages to arrive at a critical interpretation of the work. This is the most difficult but most rewarding aspect of criticism. Interpretation is an explanation of the work of art. The viewer can expect to make many mistaken interpretations on the first tries, but this is a natural part of the process of arriving at a convincing and useful explanation.

Judgment is the point at which the viewer makes a decision on the success the artist has had in creating the work. Deciding the value or worth of the artwork is the final act of art criticism. The important thing for students and others new to the process of criticism is to avoid rushing to this stage too quickly. The reasons behind the judgment are possibly more important than the judgment itself. It is useful to notice that when one person says he or she likes a work of art and another says he or she does not like a work of art, they are not in disagreement. Since these are both statements about the viewer and not the work of art, they can both be correct. Judgment should be based on features of the artwork, not on the viewer's personal likes and dislikes.

Art educators Harry S. Broudy (1987) and Ron Silverman developed a process called "aesthetic scanning" which advocates looking at art in steps that explore, for instance, sensory properties (colors, lines, shapes, and so on), formal properties (unity, composition), expressive properties (meaning, feeling), and technical properties (technique, medium). Evaluative judgments are not made until after this descriptive process.

Too many people look at an unfamiliar work of art and find it does not communicate to them. It is not necessarily that they dislike it, but they may literally not understand it. They may fear that the artist is making fun of them, that the artist just did it for the money or to put one over on the public. They think the artist is either crazy or a charlatan because the work seems to make no sense. The role of instruction in art criticism is to give students the skills to read a work of art and get meaning from it. After reading a work of art, as in reading a book, people may not like it or agree with the artist, but at least they should be able to understand it.

Arts PROPEL

Arts PROPEL is an integrated approach to teaching and assessment designed to help all students, not just those with special talents, find the artist within themselves. Arts PROPEL was developed in a collaborative effort involving Harvard Project Zero, the Educational Testing Service (ETS), and the Pittsburgh Public Schools. PROPEL is an acronym drawn from key letters in the terms *production, perception, reflection, and learning*.

Arts PROPEL is based on special views of education, learning environments, instruction, assessment, and ways of teaching. The view of education is that instruction should draw on existing student knowledge as the basis to explore, discover, create, and connect to the larger culture. The learning environment should be a studio atmosphere that allows for collabo-

rative work. The way of teaching should be the mentor-coach approach where the teacher serves as a guide and co-discoverer along with the students. The assessment model is one in which assessment is viewed as a regular part of instruction and learning.

Two major features of Arts PROPEL are its project orientation and elaborated view of portfolios. Projects are centered around what is referred to as a domain. Domain here refers to the disciplines of art, music, dance, theatre, and so on. Domain projects are long-term projects that focus on issues central to the domain. They are a series of interrelated activities that emphasize process, require revision and reflection, and are accessible to students with varying levels of technical skills. Domain projects are open-ended, with multiple solutions, and invite students to discover and invent their own solutions and to explore solutions of others. These projects pose problems that stimulate students to increase their role in defining their own problems to pursue. Through this process, students are more aware of what they are doing when they are producing art. They know that they are not just painting a picture or making a clay pot. They are able to articulate more detailed ideas about why they chose the subject, the medium, or the process. They have a sense of what they are trying to accomplish beyond simply finishing the project. Domain projects are assessed not only for the finished product, but for the learning, growth, and increased understanding that has occurred.

Project-based process portfolios are a key feature of the Arts PROPEL model. Portfolios provide ways to gain multiple perspectives on student learning and provide evidence of growth and achievement. Process portfolios include journals, student questionnaires, student interviews, domain projects, teacher journals, outside observations, and assorted documentation.

Features of Arts PROPEL include students constructing knowledge; student-centered settings; open-ended questions and tasks; structured and unstructured activities; and the three-part process of producing, perceiving, and reflecting. Students construct their own knowledge based on inquiry activities rather than having information presented to them in a lecture format. The studio-like classroom environment encourages collaboration rather than the individual learning atmosphere of the lecture approach. Open-ended questions and tasks encourage exploration and inquiry. Structured and unstructured activities are provided to enable students to construct their own meanings and knowledge.

Students engage in a three-part procedure of *production*, *perception*, and *reflection*. Producing includes the processes through which the students express their knowledge of the artistic domain by practicing, composing, inventing, designing, making, and otherwise constructing works of art. Perception is the process of critically analyzing, interpreting, noticing connections, and making distinctions or discriminations within and among works of art.

Reflection involves thinking about the process of making or responding to works of art, either during the process or retrospectively. Through the process of reflection, students look at their own artwork to decide how it might be revised or redirected. They reflect about what it is they are trying to accomplish and whether the methods they are using are the most appropriate. Students develop an increasingly social perspective of art by

considering their own work in relation to the work of others. Reflection encourages students to take an active role in their learning, encourages more inventive work, and provides ideas for future work. Reflection helps students learn and apply the standards of the domain.

Planning Instruction for Special Populations

Special populations is a term to identify student groups, such as those with exceptional educational needs (EEN), those at risk, and those identified as gifted and talented. Wisconsin Statutes require that school districts identify and provide programming for students in each of these categories.

Students with Exceptional Educational Needs (EEN)

Students with EEN should be provided instruction in the least restrictive environment appropriate to the needs of the student. Inclusion of EEN students provides educational and social learning opportunities for all students involved. Regular education students can learn a great deal about patience, tolerance, courage, and understanding from students with exceptional needs.

School art programs should visibly include activities by, for, and about students with exceptional educational needs. Adaptations should be made to facilities and materials to allow students to participate in art activities. This may include wheelchair accessible easels and modified art materials. Art teachers should take the initiative in making sure field trips, summer opportunities, and other learning opportunities are accessible to all students. Art presentations and exhibits should be adapted to accommodate any exceptional needs of students. This may include interpreted lectures, Braille text panels, and "please touch" art exhibits. Art exhibits and presentations should include images and participation by students with exceptional needs. This may include using students in wheelchairs as models for drawing and providing interpreters for students who make presentations using sign language.

In many cases it is not appropriate to consider some students *handicapped* or *disabled*. Many deaf students, for example, do not consider themselves *hearing impaired*. They regard themselves as individuals who do not desire to change their deafness anymore than they would change their race or sex.

Three Wisconsin sources for more detailed information about art for special populations are the Department of Public Instruction's *A Guide to Curriculum Planning in Art for EEN Students* (Ross-Thomson, 1990); Very Special Arts-Wisconsin in Madison, Wisconsin; and Young Artists Workshop at St. Norbert College in DePere, Wisconsin.

The mission of Very Special Arts Wisconsin (VSA WIS) is to expand the capabilities, confidence, and quality of life for children and adults with disabilities by providing programs in dance, drama, creative writing, music,

and visual art. VSA WIS is accredited by Very Special Arts, which is an international organization and educational affiliate of the John F. Kennedy Center for the Performing Arts. Congress has designated Very Special Arts as the coordinating agency of arts programming for people with disabilities.

Students at Risk

Students at risk are those less likely to succeed in school because they are one or two years behind their grade level in credits or basic skills, habitually truant or have dropped out of school, have an arrest or delinquency record, or are a pregnant or parenting teenager. The children at risk law, s. 118.153, Stats., provides a legal definition of at risk with which a district can apply for additional state funds.

Many of these students may be at risk because the traditional curriculum does not match their learning or communication styles. If a student does not communicate well in standard English, for example, that student may suffer from problems with academic achievement, self-image, and social adjustment. This sometimes places the student in a downward spiral where he or she is labeled and placed in programs in which material is presented at a slower pace in drill-and-practice, worksheet modes.

Art programs can provide the environment and opportunity to help at-risk students stay in school and learn. The basic principle is to provide at-risk students with the same challenging program expected of the best students but to allow them a variety of ways to learn successfully. William Glasser, in *The Quality School*, points out that even good students find that much of what is expected of them in school is not worth the effort to learn. Students with more pressing concerns in their own lives will be even less tolerant of low-quality, meaningless learning activities. They will respond by active or passive resistance, disruptive behavior, noncompliance, or by simply not showing up. Programs designed for gifted and talented students are often better models for at-risk students than traditional at-risk options.

Gifted and Talented Students

Standard (t) of the *Wisconsin Educational Standards* requires school districts to assure that the needs of gifted and talented students are understood and accommodated in all Wisconsin public schools from kindergarten through grade 12. Standard (t) is consistent with the philosophy of Wisconsin school districts that children are entitled to an education commensurate with their abilities and interests. Every effort should be made to avoid placing students in arbitrary categories based on perceived abilities. The idea of "tracking" students can inhibit quality education because it sets up inauthentic labeling and often contributes to unfair treatment of some students.

Gifted and talented students are those who give evidence of high performance capability in intellectual, creative, artistic, leadership, or specific academic areas and who need services or activities not ordinarily provided in a regular school program in order to fully develop their capabilities. Gifted and talented students are often underserved, ignored, or restricted in public schools. Schools are expected to develop the means by which gifted

and talented students will be identified and provided access to systematic and continuous instructional activities appropriate to their developmental needs and in their area of giftedness.

Identification needs to involve multiple criteria that include measures of intelligence, achievement, leadership, creativity, product evaluations, and nominations. Programs in art should be available for students in all gifted and talented areas, including intellectual, creative, artistic, leadership, and specific academic areas. A student with high intellectual skills, for example, may find challenges in art history. A student with high leadership skills may find challenges in museum administration. A student with high technical skills may find challenges in computer animation. Students in all categories of giftedness may find challenging programs in art.

Upper level students identified as gifted and talented should be made aware of programs such as the National Art Honor Society (see page 187) and Advanced Placement Art (see page 177). High school students who are identified as gifted in art production should be made aware of the Scholastic Art Competition, the Milwaukee Journal Calendar competition, ArtsWorld, Summer Artists Studio, courses for college credit, and other programs available for students interested in the arts.

Some strategies for providing appropriate programming for gifted and talented students include accelerated classes, accelerated grades, compacting the curriculum, enrichment in the classroom, independent study, mentoring, mini-courses, pull-out programs, resource teachers, ability grouping, and opportunities to tutor other students.

Equity Considerations

Significant differences exist in equitable access to and participation in the arts based on race, socioeconomic status, national origin, disability, age, and gender. To counteract these inequities, teachers need to make conscious efforts to provide better balance in presentation of the arts for, by, and about a broad spectrum of the world population. Equity means providing equal opportunities necessary for all students to *achieve equitably*. Efforts must be made to take whatever additional actions are necessary to assure successful achievement. Students need to be encouraged and helped to take advantage of opportunities, rather than simply making opportunities available to them.

Economic Issues

One of the key reasons why the arts must be a regular part of public education is that students from lower socioeconomic groups may be most adversely affected if they do not have access to arts education. Students whose parents or guardians have the financial means and educational background to value the arts will be more likely to provide these experiences for their children through private lessons, travel, museum visits, art in the home, and other avenues. Young people without these family resources will be placed at a further disadvantage.

In addition to differences in access, significant differences exist in the equitable use of the arts in the schools based on race, class, and gender. Poor and minority students are too often placed in classes where students spend more time doing drill-and-practice worksheet type of activities, while middle- and upper-class white students are in classes that provide more challenging, meaningful assignments. If teachers have the attitude that low-achieving students benefit most by using the arts to master basic skills, they are more likely to provide low-level arts activities rather than complex, problem-solving activities. Programs modeled on approaches developed for gifted and talented students are often more appropriate for all students. Jonathan Kozol's *Savage Inequalities* presents a discussion of the economic inequities inherent in schooling.

Multicultural Issues

People sometimes say that art is a universal language. Art, like language, is universal in that it is found in every known human culture. But works of art, like languages, are not directly understood across different cultures. People raised in a European culture may enjoy artwork by Native Americans, but they may be appreciating different features of the work and for very different reasons. People must learn to understand and appreciate art from other cultures just as people must learn to speak and understand languages from other cultures. Chinese painting, for example, can challenge European assumptions about what is "normal" in art because of distinct differences in the way perspective, space, and color are used. Vertical hanging scrolls, horizontal hand scrolls, folding fans, and loose-leaf albums used in Chinese painting are not formats characteristic of most European art. Too often, art from other cultures is labeled "artist unknown," or "anonymous" when the creator's names would be relatively easy to trace. When people diligently identify work by an apprentice of a Flemish master, for example, but fail to identify a master artist from Zaire, they are transmitting hidden messages along with the stated objectives. The intertwining of cultures and traditions is an important focus for folklore and folk arts. The tensions, prejudices, and alloying of ideas and customs produced as cultures and generations combine and clash are important lessons for students. As communities experience growth in their immigrant population, they have a wonderful opportunity to use these new resources to learn about other cultures and their arts. The presence of diverse cultures in the school can enrich the learning environment and increase community involvement.

A Framework for Multicultural Arts Education (Ross, 1989), compiled by New York University's National Arts Education Research Center, advocates cultural pluralism and diversity as a better model for multicultural education than the "melting pot" approach, which had cultural homogeneity as a goal. Goals for multicultural arts education include transforming curriculum to enable students to view concepts, issues, events, and themes from a multicultural perspective; infusing multicultural education into existing curriculum structures; implementing multicultural education across the curriculum, not merely as a separate element; enhancing existing programs that have begun to infuse a multicultural context; and formulat-

ing a systematic and comprehensive evaluation process for multicultural content and methodology in curricula and instructional materials. Teachers rarely have much background in the traditions, symbolism, meanings, and purposes of art in Africa, South America, Asia, or the Middle East. In the area of multicultural education, the teacher, too, must become a learner. Teachers need to use the arrival of each student from a new, diverse culture as an opportunity to learn more about the arts of a new part of the world. Placing the student in the position of "teacher," as well as learner, is the best way to gain real wisdom.

The Multicultural Art Prints (MAPS) developed by the Getty Center for Education in the Arts, and multicultural resources from other suppliers, such as Alarion, Crizmac, Sandak, and Shorewood Fine Art Reproductions (see resources in appendix G) fill an important resource need for art teachers by providing images of African, Pre-Colombian, Puerto Rican, Mexican, Chinese, Native American, Asian, and other cultures. The Wisconsin Department of Public Instruction has consultants in foreign language, international education, and global studies who can provide information about resources. The International Society for Education through Art (INSEA) is an affiliate of the National Art Education Association devoted to sharing ideas and information, and fostering acceptance and understanding among the diverse world cultures through art. The Cooperative Children's Book Centers (CCBC) and the publication, *Multicultural Literature for Children and Young Adults* (Kruse, 1991) are good sources for children's books and illustrations sensitive to multicultural issues. Bernard Young's *Art, Culture, and Ethnicity*, published by the National Art Education Association, addresses some issues for art educators relating to multiculturalism.



Gender Issues

Teachers and students need to be continually mindful of the negative effects of gender stereotypes in art so that young men and women are given equal encouragement and opportunities in areas such as architecture, industrial design, and fashion design. Too many young males receive messages from their parents, peers, and community that interest or ability in the arts is somehow effeminate and that such tendencies are to be discouraged. Ironically at the same time, females are too often counseled away from career choices in art areas such as architecture or industrial design on the basis of gender stereotypes. It is important for teachers to consciously do whatever is possible to counteract these stereotypes and misconceptions and to actively create an open, equitable environment for all people in which the arts can flourish.

The Arts and Sexual Content

The arts sometimes raise issues of sexuality that can either be ignored or addressed as they arise. The arts, for example, because they deal with issues of birth, life, and death, sometimes include images of nude bodies or have some sexual content. The primary responsibility for education about sexuality as one area of human growth and development rests with the

parents, guardians, or other persons responsible for minor-aged children. Student exposure to art with mature content should be voluntary and subject to parental consent. The school district should seek community involvement from parents, guardians, clergy, the arts community, and others to define the role of the community's schools in providing instruction about art with mature content. Teachers should not introduce material that may be controversial unless they have the trust and confidence of the school administration, parents, and students whom they will instruct. They should protect and respect student and family privacy and values, and carefully preview all potentially controversial materials with an advisory group before using them with students.

One source for information on social issues in art education is the Caucus on Social Theory in Art Education, which is an affiliate organization of the National Art Education Association.

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8



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The Power of the Arts to Transform Education

The Arts Education Partnership Working Group, under the sponsorship of the John F. Kennedy Center for the Performing Arts and the J. Paul Getty Trust, issued a report in January 1993 called *The Power of the Arts to Transform Education: An Agenda for Action*.

The report sites multiple benefits for schools with strong arts programs that include

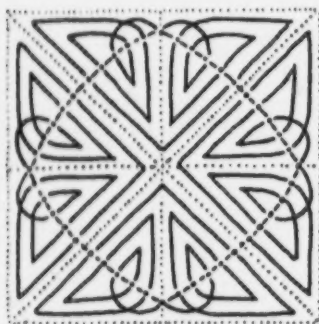
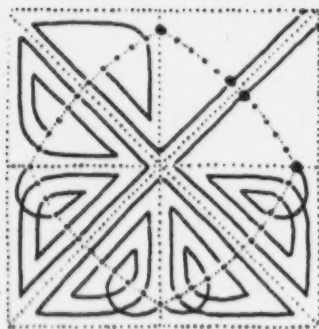
- intensified student motivation to learn;
- better attendance among students and teachers;
- increased graduation rates;
- improved multicultural understanding;
- renewed and invigorated faculty;
- more highly engaged students;
- development of a higher order of thinking skills, creativity, and problem-solving ability; and
- greater community participation and support.

The position of the Working Group is that

- the arts are forms of understanding and ways of knowing that are fundamentally important to education;
- the arts are important to excellent education and to effective school reform;
- the most significant contribution of the arts to education reform is the transformation of teaching and learning;
- this transformation is best realized in the context of comprehensive, systemic education reform; and
- art educators, artists, and arts organizations must be strongly encouraged to actively join in local, state, and national reform efforts.

Those involved in the curriculum development process should address the ways in which art education can be improved and how art can play a pivotal role in transforming education in general. Fields of study are inherently integrative. History can be covered more efficiently, and understood more easily, if the social, cultural, political, economic, and other aspects are presented together. A doctor must make humanistic, ethical, political, and physiological decisions. Heidi Hayes Jacobs' *Interdisciplinary Curriculum: Design and Implementation* presents information about various ways to integrate learning across the curriculum.

As educators form teams to create integrated curriculum projects, art teachers need to take the initiative, making suggestions and educating their colleagues. Lack of art education is common not only among students but among fellow teachers and administrators as well. Exclusion of art from regular instruction is the result of limited imaginations more than limited resources. Mathematics teachers or computer specialists, for example, are not accustomed to thinking of the art teacher as a potential collaborator. Art teachers must respectfully expand their colleagues' conceptions of the role of art in daily life and provide suggestions for appropriate ways to integrate art into their curriculum and instruction. Expenditure of time and energy to educate colleagues will yield rich and unexpected returns.



Integrating the Arts With Each Other

The Wisconsin Alliance for Arts Education promotes integration of dance, music, theatre, creative writing, and visual arts in schools through its Comprehensive Arts Education Program. A Comprehensive Arts Education Program is designed to provide all the arts for all students and has three components:

1. Instruction in specific arts disciplines by qualified arts specialists;
2. Infusion of the arts into the total curriculum; and
3. Utilization of all appropriate arts learning resources in both the school and community (WAAE, 1990).

A Comprehensive Arts Education Program is planned by a broad-based community planning committee. A Comprehensive Arts Education Program should be directed to the future, attainable, clearly written, results-oriented, beneficial to the user, and ongoing. It should also stimulate commitment, reflect the philosophy and goals of the district, be endorsed by administrators and the school board, involve art teachers and other teachers, bring in resources outside the educational system, and include plans for curriculum development and inservice programs.

Learning can be improved many ways by integrating teaching in the various arts. The first question to ask in designing integrated arts programs is, *Why?* Reducing separate arts courses into one integrated arts course of the same length results in a net loss of instructional time in the arts. Integration should only be attempted if a sincere effort to improve learning exists. This requires time for teachers to collaborate, assist each other, plan, and reflect. Efforts to offer integrated arts courses require extensive planning, professional development, and program changes such as scheduling and resource acquisition.

Integrating the arts is more than having students illustrate a poem or make costumes for a play. Students should have opportunities to learn about and reflect on similarities and differences in forms of artistic expression. Comparing and contrasting features of the individual arts (music, dance, theatre, visual arts, and literature) is a central activity in the field of aesthetics. Whenever people move beyond a single art form, a single culture, or a single period of history, they begin to think in terms of larger conceptual frameworks characteristic of aesthetic inquiry. They begin to ask questions about the nature of the arts and the nature of the individual art forms. They ask not only, *What is art?* but *What is painting?* and *What is sculpture?* Thinking effectively at this level is the mental equivalent of running a marathon and takes years of preparation. Anyone hoping to pursue aesthetic inquiry should begin early and build up his or her skills over time. Rather than giving younger students too much information all at once, teachers should encourage students to begin aesthetic inquiry as early as possible. Only in this way will society have adults who can deal with complex aesthetic issues.

Long-term, ongoing programs that integrate the arts are rare. These programs often begin as team teaching efforts in which the teachers and students learn about two or more art forms together. With some notable



exceptions, scheduling problems, lack of preparation, lack of planning time, lack of administrative support, student and colleague unfamiliarity with the concept, personality conflicts, and teacher burnout combine to cause most integrated arts programs to fall apart in two or three years. Teachers need different sets of skills to teach integrated arts programs than just basic preparation in art production and history. Reading and personal experience in more than one art form are a minimal expectation. Course work in aesthetics or philosophy of the arts is a good starting point. The Wisconsin Department of Public Instruction's ArtsWorld Teacher Institute is an opportunity for educators in each of the arts, as well as other subjects, to work together to develop integrated arts programs. The Wisconsin Alliance for Arts Education (see resources in appendix G) has conferences, workshops, programs, and publications in which all of the arts are represented as distinct forms of expression and as integrated ways of learning.

Integrating the Arts Across the Curriculum

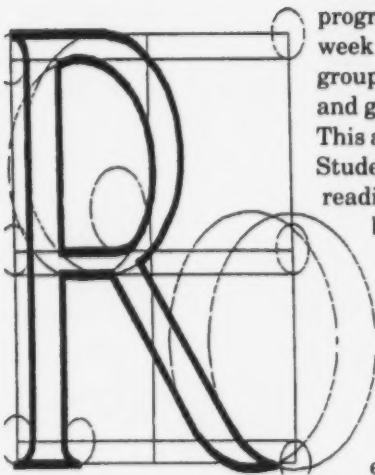
The following examples of ways in which art can be integrated with other subject areas are meant only to suggest some of the many possibilities for relating instruction across the curriculum.

Reading and Art

Programs such as Learning to Read Through the Arts Program in New York are examples of interdisciplinary approaches to integrating a total art program with a total reading program. In this program students meet each week with an art teacher and a reading teacher in whole class or small groups. Students read material relating to art experiences in the classroom and go on field trips to libraries, museums, and other cultural institutions. This approach helps students connect their experiences to the written page. Students who were reading one full year or more below grade level are soon reading at or above grade level as a result of this integrated approach. The

basic principle is that students learn to read better when there is a meaningful personal application of the material and when the instruction in reading is reinforced by experiential learning in the arts.

Current theory in reading instruction supports the idea that students should learn to read using meaningful material related to learning in the curricular areas. This is sometimes referred to as *reading across the curriculum*. Students should have opportunities to read material relating to learning activities in the art program to enhance their performance in art while improving their reading skills and overall understanding and enjoyment of school.



Writing and Art

Educators can approach the integration of writing and art in two ways. One comes from the writing across the curriculum movement and the other combines image-making and writing.

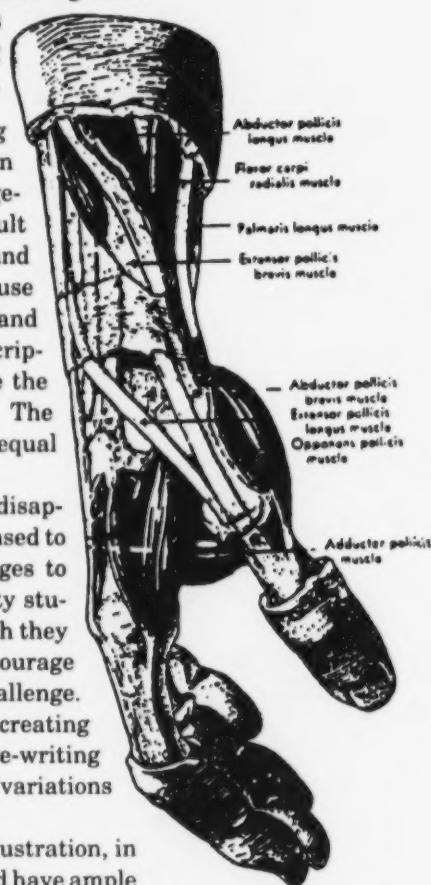
Writing across the curriculum is a movement in which students write as a regular part of instruction in art and learn to use writing skills and the vocabulary and rhetoric of the artistic community to improve their ability to discourse about art. Through this approach, students develop critical thinking skills and rhetorical skills unique to the discipline of art. Students learn to communicate about art in writing and, like art critics and aestheticians, to use language to develop their ideas as well. They use writing as a tool for learning, problem solving, and creative thinking. They extend their understanding by building on and manipulating other writing. Journal writing is a useful approach to writing across the curriculum. It allows students to "write-to-learn" by trying out their ideas in informal, ungraded writing (McLeod, 1983).

Educators need to remember that writing and visual art are distinct ways of knowing and learning about the world. Learning to read and write about art is not the same as producing art. Efforts to integrate learning in visual art and writing should not happen at the expense of learning the unique ways of knowing and communicating in the visual arts themselves. Following ideas of multiple modes of learning, however, we know that, for some students, reading and writing may be their best way to begin learning about art. They should be encouraged to use the mode of learning that works best for them. Similarly, in classes such as language arts and mathematics, students with strengths in visual learning should be encouraged to use images to learn and communicate.

Image-making and writing is an approach in which writing is used to strengthen image-making skills. Research has shown that when students combine the process of writing and image-making, they benefit in both areas of learning, with the result that they create richer imagery with more detail, subtlety, and clarity in both words and pictures. Learning is enhanced because the students are exercising their visual-spatial, kinesthetic, and verbal intelligences. Students enhance plot development, descriptive language, and imagination in their writing and improve the composition, elaboration, and imagination in their drawings. The artwork is not just a decoration for the writing but a form of co-equal expression.

Combining writing and art sometimes produces initially disappointing results in the students' artwork because they are not used to the visual problem-solving involved in trying to create images to accompany text. This phenomenon is not unlike the difficulty students have solving story problems in mathematics, even though they can easily do the mathematics on its own. This should not discourage integration attempts, but should be viewed as a learning challenge. Students need to learn to use some of the same processes in creating images as they do in writing. These include activities such as pre-writing (research, brainstorming, and thumbnail sketches), outlining (variations in preliminary sketches), and revising (reworking drawings).

Integration of writing and art brings to mind the field of illustration, in which images are created to go along with text. Students should have ample opportunities to see different illustration styles and become familiar with





the work of past and present illustrators. The Wisconsin educator John Warren Stewig's teaching materials, *Reading Pictures: Exploring Illustrations With Children*, use winners of the Caldecott Award (a children's book award) to explore how illustrations are created and how they relate to the stories they illustrate. Abundant materials on illustrators and illustration techniques are readily available in libraries, bookstores, from publishers, and from professional associations of commercial artists.

Science and Art

Science and art are sometimes seen as opposite ends of the intellectual spectrum. Science is characterized as objective and art as subjective. Even that characteristic oversimplification, however, suggests that art and science are more complementary than in opposition. They could be seen as two sides of the same coin. Those who have studied art or science know that art can be highly technical and science is sometimes quite subjective.

Art and Physics, by Leonard Shlain, shows some of the connections between art and science. Shlain shows how the artist Giotto, in the early Renaissance, developed perspective methods to give depth to a painting. These methods were forerunners to ideas that the astronomer Copernicus used to rethink people's vision of the rotation of planets and to place the sun at the center of the universe. Shlain also shows the parallels between the 19th century impressionists' visions of space and light and the theories that Einstein would later develop. Todd Siler's artwork and books, such as *Breaking the Mind Barrier*, show how art and science can be combined in an integrated approach he refers to as "Artsience." Siler says Artsience and "metaphorming" are ways of increasing connections among the arts and sciences, enriching meaning, improving productivity, and enhancing creativity.

Chemistry and art are closely linked because many of the processes used in creating art and art materials rely on a thorough knowledge of chemistry. Works of art on paper, for example, must be created on acid-free paper and matted with acid-free materials or they deteriorate rapidly. Works of art in ceramics and glass require a knowledge of chemistry. Wausau West High School instituted an integrated course in chemistry and art in 1994 to explore the aesthetic and chemical properties of glass.

Starting in kindergarten, students should be made aware that science and art both provide ways of observing the world, seeking information, and noting patterns and relationships in the natural and built environments. By fourth grade, students should use techniques of both science and art to describe the world, make inferences and predictions, and formulate questions. By seventh grade, students should use both science and art to generate hypotheses, and use visual images to help identify, prioritize, estimate, classify, correlate, and interpret information. Visual images made by people like Leonardo da Vinci in medicine and John James Audubon in ornithology are examples of the integration of art and science.

Students should learn to call on visual skills in science to solve problems, understand variables, graph data, and develop models. The creation of the double helix model of DNA by James Watson and Francis Crick is an example of the application of complex visual thinking to a scientific problem.

The model of the double helix was a visual image that was the solution to one of the 20th century's most challenging scientific questions. Someone in the science of astronomy in the 21st century may be able to create a visual model that reveals the structure of black holes.

Students of science should develop the habit of keeping notebooks that include visual images as part of their data along with formulas and written notes. Sometimes a solution to a scientific problem comes as an insight in the form of a visual image. Sometimes a scientific idea can be communicated more clearly, quickly, and effectively with an image than with numerical data, scientific formulas, or written notes. Experience in visual thinking is essential to progress in science.

Mathematics and Art

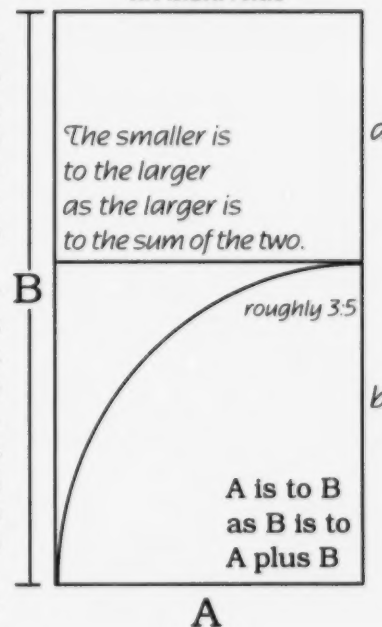
Art and mathematics have a long history of integration. The use of manipulatives in teaching mathematics concepts is a good example of integrating the visual-spatial intelligences characteristic of art with the logical-mathematical intelligences. It is a mistake, in teaching any of the symbolic forms of knowing, to have students memorize the symbolic forms before they have developed the necessary conceptual understanding. Learning the names of letters of the alphabet, for example, is not as important as being able to use them in context. Manipulatives help students understand concepts before they learn the symbolic representation.

The tessellations designed by the artist M. C. Escher are commonly used as sources of inquiry in mathematics classes across the country. Current research in chaos theory has produced several volumes of beautiful images referred to as fractals. The field of geometry relies on the mathematician's ability to see, understand, and manipulate three-dimensional objects and images. Many mathematical problems communicated in formulas are solved as visual images in the mathematician's mind, and the solutions to many mathematical problems are communicated in visual images.

The golden ratio is a key concept in mathematics and art. A 15th century mathematician named Luca Pacioli derived the golden ratio by using what is referred to as the divine proportion. Psychologists have found that rectangles whose length-to-width ratios are approximately the same as the golden ratio are most pleasing to people. Artists such as Piet Mondrian, Albrecht Dürer, Leonardo da Vinci, George Bellows, and George Seurat used the golden rectangle to compose their paintings in a form called dynamic symmetry. Dynamic symmetry can be found in objects as diverse as a cereal box, the human figure, a chambered nautilus, the Parthenon, and the Great Pyramid of Giza (Smith, 1991).

Envisioning Information and *The Visual Display of Quantitative Information* by Edward Tufte explore design strategies for enhancing the complex, multidimensional representations of information in the form of charts, graphs, tables, guides, instructions, directories, and maps. Here the artist and mathematician intersect to envision data that is compelling because of its aesthetic and informative value. He shows how understanding can be enhanced or diminished by visual presentation of information. Bruce Robertson's *How to Draw Charts & Diagrams* provides practical information about creating line charts, matrices, graphs of many sorts, and various maps.

Golden Section an ideal ratio



Many areas of the visual arts are inextricably bound to knowledge and understanding of mathematics. A photographer has to use mathematics in computing shutter speeds and f-stops. A graphic designer has to use mathematics to compute aspect ratios and percentages of enlargement and reduction for printing images. An animator has to compute frames per second and translate those figures into convincing movement. There are many ways in which the everyday work of an artist is integrally linked with mathematics.

Students should have opportunities to use mathematical knowledge and concepts to help solve visual-aesthetic problems and to use visual-aesthetic knowledge and concepts to solve problems in mathematics. Integrated learning should help to avoid the problem that high school students had solving a math problem that asked them to calculate how large a mat for a particular work of art should be. They could not solve the problem because they did not know what a mat was.

Social Studies and Art

The social studies curriculum offers many opportunities for integration with the art curriculum. Chapter 2 describes how an art program could be aligned with the content of a social studies curriculum. In addition to aligning *content* of the two disciplines, it is useful to think of relationships between social studies and art as *methods of inquiry*. The anthropologist Margaret Mead (1951) was one of the first to use photography and film as methods of researching other cultures. Thousands of photographs and thousands of feet of film she took of the Balinese became primary data for her research as surely as her notebooks and written accounts. As a result of her work, the field of visual anthropology was developed, in which photographers, film makers, and artists used visual media as research tools to study and document cultures. Sol Worth and John Adair's *Through Navajo Eyes: An Exploration in Film Communication and Anthropology* is especially instructive. Two other sources are Karl Heider's *Ethnographic Film* and John Collier's *Visual Anthropology: Photography as a Research Method*.

When visual media usually used by artists are applied to the study of people's lives, it is sometimes referred to as *visual sociology*. Visual sociologists and anthropologists are sometimes referred to as *ethnographic* filmmakers or *documentary* filmmakers. A famous study was shown on television in the 1970s in which a video crew virtually lived in the Loud family home to record such events as the son's revelation that he was homosexual and the breakup of their marriage (Loud, 1974). The world was exposed to a form of visual sociology.

Another useful integration of art and social studies is the study of social implications of artistic expression. Some of these are discussed under art and society in chapter 4 and others are discussed under equity considerations in chapter 7. Students should study the relationships between the U.S. way of life and its art and design through topics such as artistic freedom, cultural diversity, urban design, roles of men and women, integration, and cultural history. This is the relationship of social theory to art, and there are many useful resources in the literature of sociology and art.

Traditionally, the role of social studies was to prepare students to be responsible citizens. That focus has been broadened to mean responsible world citizens rather than just citizens of the United States. It is important in social studies to ensure that the knowledge base is as reliable, accurate, and carefully documented as possible. Interpersonal skills, communication, and higher-order thinking are important. Valuing different cultures and learning how to resolve conflicts are key goals, as well as participating in the social order by being well-informed, making wise decisions, and voting. These are some of the key areas art teachers can explore in relationship to the art program.

Global Studies and Art

One of the best ways to get to know another culture is through its art. When one visits other countries or when people from other countries visit the United States, some of the main attractions are museums, public sculpture, significant architecture, and beautiful scenery. One comes to know people through the design of their clothing, homes, buildings, cities, and environment.

The arts are also one of the ways in which people try to understand, express, and cope with their lives. Most interactions between countries include cultural and artistic sharing. Many schools in Wisconsin have "sister school" programs with countries like Germany or Vietnam, in which students share artwork with foreign students. In this way they learn something about themselves at the same time they learn something about people of other countries. U.S. students are often surprised at the mistaken perceptions people from other countries have of them and learn that perhaps many of their own perceptions of people from other countries are just as inaccurate. Japanese children, for example, portray people from the United States as tall and blonde while U.S. children often portray people from other countries in "folk" costumes.

Many countries, including the United States, have at times tried to suppress the arts because of their power to communicate ideas effectively and to stir the minds and emotions of people. Whenever a group or government tries to control the minds and lives of people, it tries to control the artists. Those who fear the open exchange of ideas try to censor art and censure artists who do not support their social, political, or ideological agendas. People can tell a great deal about a culture, including their own, not only by what they see but what they do not see in its art.

Foreign Languages and Art

Learning a foreign language is more than learning to read, write, speak, and listen in a new language. Language is part of an entire culture and students need to learn new languages within the context of learning about the culture as well. Students learn that one not only speaks differently in another culture but also, to a certain extent, begins to think differently. Learning a new language is also learning new perspectives of looking at the world, new ways to organize society, as well as how to empathize with people different from oneself.



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The arts offer excellent ways to gain access to the traditions and trends in a culture. Learning to speak and write a new language in conjunction with that culture's art forms offers students a glimpse into the rich cultural heritage interwoven with its language. It is important here to think of a culture's art in the broad sense used in this guide. Art includes works in museums and galleries, but also the architecture of homes and workplaces, utensils and furniture in the homes, cars, city streets, movies, television shows, clothing, and magazines. These are all visual art forms. It is also important to remember that much of the design of U.S. culture was influenced by other cultures where, in most cases, their history is much longer than that of the United States. Students should see how the United States has been influenced by aesthetic choices made in other countries.

Much of the language of art used in the United States is rich with terms borrowed from other countries. Terms like "trompe l'oeil" (French for "fool-the-eye"), "chiaroscuro" (Italian for "light and dark"), and "origami" (Japanese paper folding) are part of American artist's vocabulary that has obviously come from other countries. Students need to know that names such as "Jean Miro" are men's names rather than the more typically female name "Jean" in English.

Knowing something about the cultural and linguistic connections between the United States and other countries teaches Americans something about their history and development of their culture. A preponderance of French and Italian words in American painting vocabulary, for example, is also reflected in early American painting styles. The influence of the German Bauhaus can be seen today in cities across the United States. Japanese architecture influenced the architectural style of Frank Lloyd Wright. Danish furniture design still has a huge following in this country, and Russian film had a tremendous influence on early filmmaking in the United States. Numerous examples such as these provide opportunities to learn about other cultures and about oneself while learning a new language.

Environmental Education and Art

Much of environmental education focuses on issues such as air pollution, environmental warming, and water quality. Environmental education is often seen as a topic for science and draws on ideas and solutions from chemistry and biology. People should also consider the many visual and aesthetic issues related to environmental education.

Recycling, for example, relates to the way people design products and packaging. Packaging designers have tried to find ways to design packaging to reduce the amount of waste material, make it easier to recycle, and make it easier to reuse. Product designers have tried to pay attention to the raw materials necessary to create a product, the potential effect on the environment when a product is used, and how a product can be disposed of when it is no longer being used. Victor Papanek's book *Design for the Real World* is one good source for ideas about responsible product design. He challenges designers to avoid projects that have little social value (fur-lined toilet seat covers) when there are so many critical design problems to attack (alternative modes of transportation).

When people think about environmental education and art, they often envision students drawing pictures of landscapes and animals or making posters about protecting the environment. The study of urban and industrial design may provide solutions to the problems of environmental degradation as important as the study of the natural environment itself.

Some say that one of the United States' crowning aesthetic legacies, comparable to the Sphinx or the Pyramids of Egypt, is its public highway system. Visitors from other continents marvel at the ease with which people traverse this vast country. Creation of these marvels of asphalt and concrete, however, has been at the expense of much of the natural environment. One part of environmental education is to look at how people can build to accommodate the growing world population while preserving the best of its natural and cultural resources.

Students should have opportunities to try to imagine, design, and create a future that works. This is serious work and cannot be left to the simple creation of a poster, mural, or drawing of a fantasy environment. Students and teachers need to work together to consider some tangible differences in how people will live to have a sustainable future with a high quality of life for everyone.

Vocational Education and Art

There are three important facts to keep in mind regarding art and vocational education.

1. Hundreds of thousands of jobs in over 100 job categories require advanced skills in the visual arts.
2. Many art students, like most other vocational education students, go to technical colleges, learn from mentors in apprenticeship situations, or go directly into the art job market after graduating from high school.
3. Almost every vocation requires individuals to make visual and aesthetic decisions as a regular part of their jobs.

Students who fail to see the connection between the visual arts and productive employment should consider some of the following questions:

- How much is the sale of a particular automobile dependent upon its styling and design?
- Who designs the products used every day?
- How important is image in the public's eye to the success of a company?
- How important is advertising to the sales of new products?
- Who designs the magazines, takes the photos, creates the illustrations, and lays out the type in the publications people read?
- How important is the workplace environment to job satisfaction of employees?
- Who designs the buildings people live and work in?
- How important is the design of a sales environment to sales and customer satisfaction?
- How often do people buy something because they like the way it looks? How often do they pass something by because they do not like its looks?
- How important is style in the choice of clothing people buy?
- How many manufactured products, like VCRs and stereos, depend on the public's appetite for the arts of music, dance, theatre, film, and visual art?

- What country produces most of the music, films, and videos played on stereos, VCRs, and televisions?
- How do people prepare for careers that did not exist when parents and teachers were preparing for theirs?
- What learning experiences will be useful if a company one works for enters the international market?

School-to-Work Transition



Wisconsin's preK-12 School-to-Work transition plan is designed to prepare all students for life and work in a competitive global economy. As part of the school-to-work transitions, students should be made aware of the many vocational opportunities in the design arts and in occupations that use art-related knowledge and skills. Apprenticeships in the printing professions, for example, open opportunities for students to use design art skills of pasteup and layout. It is important that opportunities be made available for students in the arts as well as more traditional areas when designing school-to-work transition programs. The Wisconsin School-to-Work plan includes all preK-12 programs, including Education for Employment, Tech Prep, and Youth Apprenticeship. Education for Employment, Standard (m) of the *Wisconsin Educational Standards* (Wisconsin DPI, 1991), has seven components that include business-education partnership, school-supervised work experience, employability skills and attitudes, career exploration and planning, practical application of basic skills, business operations and economics, and access to vocational education. *Tech Prep* is a legislative mandate for high school programs with a sequence of courses leading to advanced standing for associate degree programs at a technical college. Students in this program select a career-focused course sequence of two years of secondary

school and one or two years of higher education. Wisconsin's Youth Apprenticeship Program is designed to integrate school-based learning and work-based learning to provide students with academic and occupational skills leading to both a high school diploma and a certificate of occupational proficiency in a specific industry. The state certificate provides advanced standing in related associate degree programs in the Wisconsin Technical College System.

Careers and the Visual Arts

Some of the major job markets for students in the visual arts include advertising, crafts, education, architecture, galleries, cinematography, fashion, studio arts, business and industry, the military, interior design, journalism and publishing, photography, science and museum work, television

and theatre. Some of the job types include artist, designer, illustrator, photographer, art director, consultant, curator, writer, restorer, researcher, educator, and sales. Many of these jobs require specialized skills and knowledge of technical processes (Ito, 1993). One producer of high-tech video commercials pointed out that he can train someone to use the computer and video technology required to produce their award winning commercials in a matter of months. So, in hiring, he looks at an applicant's visual skills and preparation in art. Visual skills take years to develop.

Currently, 80 percent of the people in the United States have not had an art class since sixth grade, so most Americans have a sixth grader's level of awareness of the scope of career opportunities in the arts. Many adults still have stereotypical concepts of starving artists and socially maladjusted creative individuals. Some adults still mistakenly counsel students away from careers in the arts. They are unaware of the career potential in the art and design fields. One goal of this art curriculum framework is to help all citizens gain a better understanding of the productive roles artists play in a healthy society (Brommer, 1984).

Technology and Art

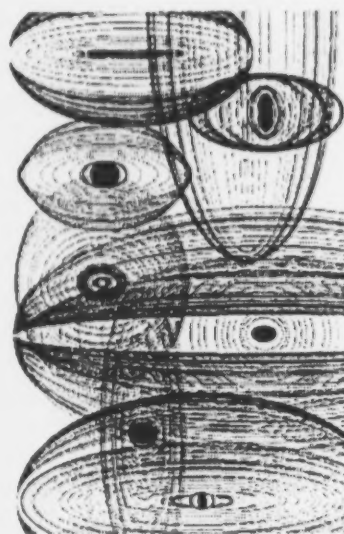
Computers and other forms of technology have become a regular part of life and work for increasing numbers of people. Artists, designers, and art educators use technology as a means of producing art, presenting art, teaching, managing data, communicating, getting information, and connecting with the world.

Computer Graphics

Powerful computer graphics programs allow artists to create images that emulate almost all other two-dimensional media traditionally used by artists. A stylus and graphics tablet can replicate pencils, charcoal, pastel, felt-tip marker, airbrush, and watercolor so that the printed product is virtually indistinguishable from the actual medium. Because major changes can be made to an image without beginning the entire process over, computer imaging encourages experimentation and refinement of images to a degree that conventional media do not allow.

Even if a school does not have the equipment necessary to use the computer applications, there is a great deal students should know about computer graphics in general. They can analyze images they see in print, video, and film to learn how they were created and become familiar with terminology and processes used by computer artists. Artists who use computers make good classroom guests.

Many spreadsheet programs offer the opportunity to create graphs and diagrams to represent quantitative information. Bar graphs, pie charts, scattergrams, and other visual representations of quantitative data are part of the realm of visual learning that constitutes visual art education. Students should have opportunities to learn how to effectively represent information in visual forms.



Computer Assisted Design (CAD)

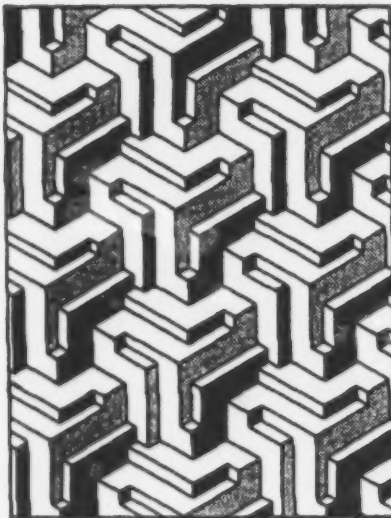
Architects, landscape architects, interior designers, medical illustrators, industrial designers, engineers, and others use computer assisted design (CAD) as an integral part of the design process. The laborious process of drawing models and plans in perspective representing three dimensions is much easier and faster with CAD systems.

Pre-Press

The use of computers in the printing industry has had a revolutionary impact on what is known as the pre-press trade. Pre-press is the design and layout preparation of print material before it goes to the printer. Artists with special training in computer assisted design and the use of page-layout software involving image-scanning, inputting of text, graphics, and text manipulation now must rely heavily on technology to be competitive. Students should know what preparations are made to get print material ready for publication and how artists are involved in this highly technological field.

Desktop Publishing

With the development of desktop publishing, knowledge and processes once used primarily by graphic designers are now everyday skills. People with no previous graphic design experience are now using computers to create publications and employing such concepts as kerning, justification, leading, point size, italics, and importing.



Multimedia

Designers are using technologies such as CD-ROM, digital image processing, and video editing to create entirely new genres of images. People see images in print media, television, and movies that were impossible or impractical before the development of these technologies.

Networking

Gaining electronic access to individuals, information, and ideas has been greatly improved with the development of E-mail, electronic bulletin boards, two-way satellite transmissions, and other online services. The United States has become an information-rich society where it is more important to learn how to manage the flow of information than to worry about its availability. The technology to connect teachers to teachers, students to students, and classroom to classroom around the world arrived before educators had curriculum and the conceptual skills to exploit it.

Presentation Graphics

Teachers and others have found presentation techniques available to them through electronic media that greatly enhance their ability to present color and moving images to an audience in ways that were not possible

before. Colorful charts, maps, and graphs can be produced automatically with the right software packages. Graphics developed on the computer can be projected on large screens and controlled directly from the computer to improve visual presentations in classes with video inserts, full color, and audio support.

Instructional Management

Some of the time-consuming tasks associated with teaching, such as writing lesson plans, grading, and recordkeeping, can be improved with the use of electronic management systems. Teachers can design curriculum, develop tests, grade, and keep records for individual students and entire classes or groups of classes using readily available software. Teachers can also share lesson ideas with colleagues far beyond the walls of their schools.

Videodiscs

Videodisc technology makes it possible to store and retrieve a large quantity of color images and video clips showing art, artists, and contextual information about art. Videodiscs containing thousands of images from places such as the Louvre in Paris and the National Gallery of Art in Washington, D.C. make these images available to a larger number of students and teachers in formats that are economical and easy to use.

Film

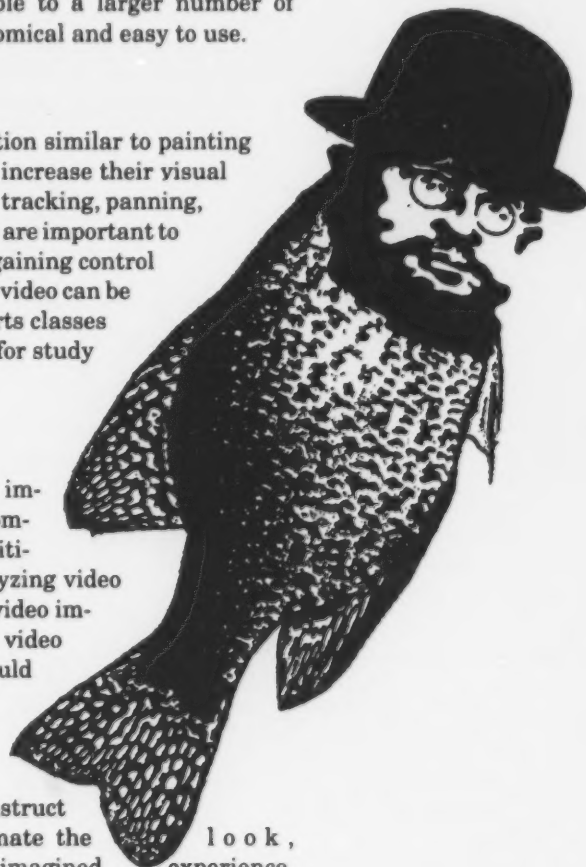
Film has elements of structure and composition similar to painting and sculpture that students can learn about to increase their visual literacy. Camera angles, point of view, framing, tracking, panning, color balance, shot sequence, and other elements are important to understanding film as a visual medium and to gaining control of film as a form of artistic expression. Film and video can be studied as narrative forms in communication arts classes but are also powerful visual forms appropriate for study in arts classes.

Video

Video images bombard people daily, so it is important to understand the techniques used in composing video images as part of the economic, political, cultural, and aesthetic environment. Analyzing video images, learning the structural composition of video images, and gaining facility with expression in video media are an important part of what students should know and be able to do.

Virtual Reality (VR)

Virtual reality is the term for attempts to construct artificial sensory environments that approximate the feel, sound, and overall sensation of some real or imagined experience. Whatever the entertainment or utilitarian value of virtual reality, the



process of developing these projects teaches people a great deal about how they perceive the world. This new knowledge will be important for teachers to assimilate into future learning theory and practice.

Artificial Intelligence (AI)

Attempts to approximate the functions of the human brain with electronic machines have contributed valuable machines for work and recreation but have also helped people understand a great deal about the complexity of human cognition. Developments in artificial intelligence provide important insights into learning processes and influence design and development of educational theory and practice. Interestingly, these thinking machines are able to surpass humans in tasks such as mathematical computation, memory, and logic but are unable to do simple tasks like recognizing faces. Artificial intelligence researchers are finding that visual intelligence is more complex than people have thought. Visual thinking, often taken for granted, involves higher-order mental functions than tasks like mathematical computation, which can be accomplished better by machines. The arts have not been central to education so far because the conceptual tools have not yet been developed to deal with such complex activities in meaningful ways. As research in artificial intelligence and brain function continues to develop, people should become better equipped to understand complex human activities such as those regularly used in the arts. When that occurs, more people will be able to understand the role of the arts in higher order thinking, and the arts will be considered an important component of regular instruction.

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Introduction



If art education is to play a role in transforming education, art educators need to be familiar with national and state goals and standards when developing curriculum. Beginning the curriculum development process by focusing on larger concepts, such as those identified in national and state goals and standards statements, will help educators develop a larger picture of the purposes for art in the schools and avoid the pitfall of developing curriculum around details of media and processes. Curriculum developers should have a clear conception of the larger purposes of art education and avoid designing curriculum that jumps from drawing, to painting, to sculpture, and so on, without direction. The goals and standards should be the answer to the question, *Why?* And curriculum developers need to continually raise that question when making choices about curriculum content.

Something in the concept of developing goals, standards, and outcomes is inherently suspect for people in the arts. Part of the reason is that the arts often seek to work in an open-ended way that takes wise advantage of chance and serendipitous developments. Artists have learned that it can be a mistake to focus too steadfastly on a predetermined goal or standard because, in so doing, one might miss an opportunity that is the very thing that might make the endeavor unique and rewarding. Artists often do not agree with the old saying, *If you don't know where you're going you won't know when you get there.* They often do not know exactly where a work of art might lead, but they do know when it has reached a worthwhile place and when to stop.

In this regard, there have been some developments in science and mathematics that help explain the wisdom of the artistic tendency to have indeterminate goals. One of these comes from chaos theory in science, and the other comes from multivalent set theory in mathematics.

Chaos theory was developed to help scientists create models for unpredictable occurrences, such as weather and earthquakes. Until chaos theory was developed, these natural occurrences eluded scientists' attempts to develop descriptive theories for what are sometimes called "disjunctive events." People know that weather follows a pattern but not what that pattern will be. Chaos theory was developed to address such problems (Gleick, 1987).

Multivalent set theory is better known in the literature by its popular name, "fuzzy logic." This mathematical theory was designed to replace the long held logical positivist belief that things "either are or they aren't"—an apple is either an apple or it's not. This bivalent mode of thinking dominated human thought from Aristotle and Plato until at least the 1930s (Kosko, 1993).

Fuzzy logic addresses the reality that most things are not one thing or another but exist as degrees of being one thing or another. If one removes grains one at a time from a heap of sand, for example, at what point does it cease being a heap of sand? Fuzzy logic argues that the sand is not either a heap or not a heap but that it is more or less a heap at any given point. Rather than "heap or not heap" as the earlier bivalent theory insisted, fuzzy logic describes a world of degrees or multivalent states (McNeill and Freiburger, 1993).

Both chaos theory and fuzzy logic open up thought processes and help close the gap between “hard” science and the arts. Science and mathematics are able to more adequately deal with indeterminate states of being and, by so doing, come closer to unifying the understanding of thought processes of both scientists and artists. The old idea that the arts are “subjective” is illuminated by the fuzzy logic paradigm that the world is made up largely of objects and events that are indeterminate. Weather patterns, for example, are not easy to predict, but this does not mean that weather is subjective or that it does not follow laws of physics. The idea that the arts are “open-ended” is illuminated by chaos theory, which demonstrates the beauty and ultimate pattern to unpredictable events. The beautiful fractal patterns people see in mathematics books and on posters are testimony to the fact that unpredictable events taken in large or small scale have coherent patterns and an elegant logic of their own. Mathematician Benoit Mandelbrot used the problem of determining the length of the coastline of England as an example of the impossibility of determinant answers to seemingly empirical questions. The more accurate people try to make the measurement, the more accurate measurement eludes us.

With this in mind, educators can address the idea of standards and goals in art if they keep in mind that standards and goals describe events that cannot be fully determined in advance, are open-ended and subject to variation, and are unpredictable without being subjective—just as in science and mathematics.

National Education Goals

Goals 2000: Educate America is the federal government’s voluntary plan to reinvent our nation’s education system through a local and state partnership with parents, educators, community groups, business and labor leaders, and citizens.

The Goals 2000: Educate America Act is designed to reform education in the United States by

- setting high academic expectations for all students;
- embracing new, world-class content and performance standards;
- providing rigorous course content so students can reach the challenging goals;
- improving training and professional development opportunities for educators;
- promoting parental and community involvement and participation;
- challenging all schools to be accountable for student learning;
- encouraging systemic reform from the bottom-up, not top-down; and
- underscoring the link between education and employment.

States are expected to develop three types of standards described in Goals 2000—content standards, performance standards, and opportunity-to-learn standards. Student content standards are broad descriptions of the knowledge and skills students should have in a particular subject area. Student performance standards are concrete examples and explicit definitions of how students will demonstrate that



they are proficient in knowledge and skills outlined by the content standards. Opportunity-to-learn standards are the conditions of teaching and learning necessary for all students to have a fair opportunity to learn, including ways of measuring the extent to which such standards are being met. This includes the sufficiency and quality of resources, practices, and conditions at each level of the education system provided to all students to allow them to learn the material in the national, state or locally developed content standards.

National Standards in the Arts

In the early 1990s, the federal government began the first ever effort to develop national standards for learning and achievement in important content areas. These standards would be voluntary but were intended to provide direction for curriculum, instruction, and assessment. The Consortium of National Arts Education Associations was formed to develop national standards for education in the arts. This included dance, music, and theatre as well as the visual arts. Separate task forces were appointed for each subject area, and in 1994, the standards were completed and submitted to the U.S. Secretary of Education.

In general, *The National Visual Arts Standards* (NAEA, 1994) were organized around competencies for three groups: grades K-4, grades 5-8, and grades 9-12. Two different types of standards were included. *Contents standards* identify what students should know and be able to do, and *achievement standards* identify the levels of achievement expected at the completion of grades 4, 8, and 12. Figure 15 outlines these standards. The complete *National Visual Arts Standards* can be obtained from the National Art Education Association.

State Plan for Arts Education

A consortium of state organizations called the Wisconsin Partners in Arts Education maintains a state plan for arts education and monitors progress toward its implementation. The 1993 plan is entitled *Realizing the Vision: The Fostering of Arts Education in Wisconsin*. It was developed with the participation of four state organizations, including the University of Wisconsin-Madison Department of Continuing Education in the Arts, Wisconsin Alliance for Arts Education, Wisconsin Arts Board, and Wisconsin Department of Public Instruction.

The goals for the Wisconsin state plan for arts education include such things as increasing the awareness of the public and policy makers of the value of the arts in education, securing the teaching of the arts in schools as a basic part of the curricula, demonstrating how teaching and learning from the arts can be extended into the broader educational system, and creating community partnerships that encourage planning and implementing community-based long-range plans to advance the arts as an integral element in K-12 education and to promote lifelong learning in the arts.

What Students Should Know and Be Able to Do in the Arts

from The National Visual Arts Standards

There are many routes to competence in the arts disciplines. Students may work in different arts at different times. Their study may take a variety of approaches. Their abilities may develop at different rates. Competence means the ability to use an array of knowledge and skills. Terms often used to describe these include creation, performance, production, history, culture, perception, analysis, criticism, aesthetics, technology, and appreciation. Competence means capabilities with these elements themselves and an understanding of their interdependence; it also means the ability to combine the content, perspectives, and techniques associated with the various elements to achieve specific artistic and analytical goals. Students work toward comprehensive competence from the very beginning, preparing in the lower grades for deeper and more rigorous work each succeeding year. As a result, the joy of experiencing the arts is enriched and matured by the discipline of learning and the pride of accomplishment. Essentially, the Standards ask that students should know and be able to do the following by the time they have completed secondary school:

- *They should be able to communicate at a basic level in the four arts disciplines—dance, music, theatre, and the visual arts.* This includes knowledge and skills in the use of the basic vocabularies, materials, tools, techniques, and intellectual methods of each arts discipline.
- *They should be able to communicate proficiently in at least one art form,* including the ability to define and solve artistic problems with insight, reason, and technical proficiency.
- *They should be able to develop and present basic analyses of works of art* from structural, historical, and cultural perspectives, and from combinations of those perspectives. This includes the ability to understand and evaluate work in the various arts disciplines.
- *They should have an informed acquaintance with exemplary works of art from a variety of cultures and historical periods,* and a basic understanding of historical development in the arts disciplines, across the arts as a whole, and within cultures.
- *They should be able to relate various types of arts knowledge and skills within and across the arts disciplines.* This includes mixing and matching competencies and understandings in art-making, history and culture, and analysis in any arts-related project.

As a result of developing these capabilities, students can arrive at their own knowledge, beliefs, and values for making personal and artistic decisions. In other terms, they can arrive at a broad-based, well-grounded understanding of the nature, value, and meaning of the arts as a part of their own humanity.

Grades K-4

1. **Content Standard:** Understanding and applying media, techniques, and processes

Achievement Standard:

Students

- a. know the differences between materials, techniques, and processes
- b. describe how different materials, techniques, and processes cause different responses
- c. use different media, techniques, and processes to communicate ideas, experiences, and stories
- d. use art materials and tools in a safe and responsible manner

2. **Content Standard:** Using knowledge of structures and functions

Achievement Standard:

Students

- a. know the differences among visual characteristics and purposes of art in order to convey ideas
- b. describe how different expressive features and organizational principles cause different responses
- c. use visual structures and functions of art to communicate ideas

3. **Content Standard:** Choosing and evaluating a range of subject matter, symbols, and ideas

Achievement Standard:

Students

- a. explore and understand prospective content for works of art
- b. select and use subject matter, symbols, and ideas to communicate meaning

4. **Content Standard:** Understanding the visual arts in relation to history and cultures

Achievement Standard:

Students

- a. know that the visual arts have both a history and specific relationships to various cultures
- b. identify specific works of art as belonging to particular cultures, times, and places
- c. demonstrate how history, culture, and the visual arts can influence each other in making and studying works of art

5. **Content Standard:** Reflecting upon and assessing the characteristics and merits of their work and the work of others

Achievement Standard:

- a. understand there are various purposes for creating works of visual art
- b. describe how people's experiences influence the development of specific artworks
- c. understand there are different responses to specific artworks

6. **Content Standard:** Making connections between visual arts and other disciplines

Achievement Standard:

Students

- a. understand and use similarities and differences between characteristics of the visual arts and other arts disciplines
- b. identify connections between the visual arts and other disciplines in the curriculum

Grades 5-8

1. **Content Standard:** Understanding and applying media, techniques, and processes

Achievement Standard:

Students

- a. select media, techniques, and processes; analyze what makes them effective or not effective in communicating ideas; and reflect upon the effectiveness of their choices
- b. intentionally take advantage of the qualities and characteristics of art media, techniques, and processes to enhance communication of their experiences and ideas

2. **Content Standard:** Using knowledge of structures and functions

Achievement Standard:

Students

- a. generalize about the effects of visual structures and functions and reflect upon these effects in their own work
- b. employ organizational structures and analyze what makes them effective or not effective in the communication of ideas
- c. select and use the qualities of structures and functions of art to improve communication of their ideas

- 3. Content Standard:** Choosing and evaluating arrangements of subject matter, symbols, and ideas

Achievement Standard:

Students

- a. integrate visual, spatial, and temporal concepts with content to communicate intended meaning in their artworks
- b. use subjects, themes, and symbols that demonstrate knowledge of contexts, values, and aesthetics that communicate intended meaning in artworks

- 4. Content Standard:** Understanding the visual arts in relation to history and cultures

Achievement Standard:

- a. know and compare the characteristics of artworks in various eras and cultures
- b. describe and place a variety of art objects in historical and cultural contexts
- c. analyze, describe, and demonstrate how factors of time and place (such as climate, resources, ideas, and technology) influence visual characteristics that give meaning and value to a work of art

- 5. Content Standard:** Reflecting upon and assessing the characteristics and merits of their work and the work of others

Achievement Standard:

Students

- a. compare multiple purposes for creating works of art
- b. analyze contemporary and historic meanings in specific artworks through cultural and aesthetic inquiry
- c. describe and compare a variety of individual responses to their own artworks and to artworks from various eras and cultures

- 6. Content Standard:** Making connections between visual arts and other disciplines

Achievement Standard:

Students

- a. compare the characteristics of works in two or more art forms that share similar subject matter, historical periods, or cultural context
- b. describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with the visual arts

Grades 9-12

- 1. Content Standard:** Understanding and applying media, techniques, and processes

Achievement Standard, Proficient:

Students

- a. apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artworks
- b. conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use

Achievement Standard, Advanced:

Students

- c. communicate ideas regularly at a high level of effectiveness in at least one visual arts medium
- d. initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation

- 2. Content Standard:** Using knowledge of structures and functions

Achievement Standard, Proficient:

Students

- a. demonstrate the ability to form and defend judgments about the characteristics and structures to accomplish commercial, personal, communal, or other purposes of art
- b. evaluate the effectiveness of artworks in terms of organizational structures and functions
- c. create artworks that use organizational principles and functions to solve specific visual arts problems

Achievement Standard, Advanced:

Students

- d. demonstrate the ability to compare two or more perspectives about the use of organizational principles and functions in artwork and to defend personal evaluations of these perspectives
- e. create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions

- 3. Content Standard:** Choosing and evaluating a range of subject matter, symbols, and ideas

Achievement Standard, Proficient:

Students

- a. reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture
- b. apply subjects, symbols, and ideas in their artworks and use the skills gained to solve problems in daily life

Achievement Standard, Advanced:

Students

- c. describe the origins of specific images and ideas and explain why they are of value in their artwork and in the work of others
- d. evaluate and defend the validity of sources for content and the manner in which subject matter, symbols, and images are used in the students' works and in significant works by others

- 4. Content Standard:** Understanding the visual arts in relation to history and cultures

Achievement Standard, Proficient:

- a. differentiate among a variety of historical and cultural contexts in terms of characteristics and purposes of works of art
- b. describe the function and explore the meaning of specific art objects within varied cultures, times, and places
- c. analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions to inform their own art making

Achievement Standard, Advanced:

Students

- d. analyze and interpret artworks for relationships among form, context, purposes, and critical models, showing understanding of the work of critics, historians, aestheticians, and artists
- e. analyze common characteristics of visual arts evident across time and among cultural/ethnic groups to formulate analyses, evaluations, and interpretations of meaning

- 5. Content Standard:** Reflecting upon and assessing the characteristics and merits of their work and the work of others

Achievement Standard, Proficient:

Students

- a. identify intentions of those creating artworks, explore the implications of various purposes, and justify their analyses of purposes in particular works
- b. describe meanings of artworks by analyzing how specific works are created and how they relate to historical and cultural contexts
- c. reflect analytically on various interpretations as a means for understanding and evaluating works of visual art

Achievement Standard, Advanced:

Students

- e. correlate responses to works of visual art with various techniques for communicating meanings, ideas, attitudes, views, and intentions

- 6. Content Standard:** Making connections between visual arts and other disciplines

Achievement Standard, Proficient:

Students

- a. compare the materials, technologies, media, and processes of the visual arts with those of other arts disciplines as they are used in creation and types of analysis
- b. compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences

Achievement Standard, Advanced:

Students

- c. synthesize the creative and analytical principles and techniques of the visual arts and selected other arts disciplines, the humanities, or the sciences

Wisconsin's Educational Goals and Learner Outcomes

In March 1992, the passage of Wisconsin Act 269 paved the way for far-reaching educational reforms in Wisconsin, including the establishment of an educational goals-setting process, funding for the development of a comprehensive student assessment system, and provision for an advisory committee to recommend ways to connect goals to the assessment system.

The educational goals arrived at as part of this process are listed in figure 16. These goals are not mandated, but established to provide yardsticks by which communities and institutions can measure their performance. The educational goals fall into three categories: *learner*, *institutional support*, and *societal support goals*. The State Educational Goals Committee, wanting to reflect the responsibility of communities and institutions in the formal learning process, included societal and institutional expectations as the foundation for systematic change in schools. The learner goals constitute the general expectations for students. The first three learner goals serve as the basis for statewide assessment (Wisconsin DPI, 1994).

While providing general expectations for students, the learner goals are not specific enough to serve as the basis for assessment development. In response to the need for more concrete outcome statements and specific academic content, Department of Public Instruction (DPI) staff members, along with educators and citizens, completed outcome statements listed in figure 17.

An important point for art educators to remember is that all the goals and outcomes apply to the arts, not just those that refer to "aesthetic awareness." For example, the arts represent a substantial knowledge base, develop thinking and communication processes, help develop character, and so on. The arts, in fact, provide one of the most effective and comprehensive avenues to realizing Wisconsin's educational goals and learner outcomes.



WISCONSIN'S EDUCATIONAL GOALS

VISION

Wisconsin's public schools exist for all students so they have an equal opportunity to attain their highest level of academic achievement, growth, and development.

Public education is a fundamental responsibility of the state. The constitution vests in the state superintendent the supervision of public instruction and directs the legislature to provide for the establishment of district schools. The effective operation of the public schools is dependent upon a common understanding of what public schools should be and do. Establishing such goals is a necessary and proper complement to the state's financial contribution to education. Each school board should provide curriculum, course requirements, and instruction consistent with the goals established. Parents and guardians of pupils enrolled in the school district share with the state and school board the responsibility for pupils meeting the goals.

Educational goals are not all the same. They differ in who implements them, who or what is directly affected by them, and the immediacy of their impact on the classroom. For convenience, the following goals are divided into three major categories: Learner Goals, Institutional Support Goals, and Societal Support Goals.

LEARNER GOALS

Learner goals refer to our expectations for students. What should students know and be able to do as a result of their time in the educational system? These goals apply to the students rather than the society or the institutions within which they are educated.

Schools exist for students to learn and to reach their full potential. The first three learner goals are the basis for development of a statewide assessment system and provide the basis upon which students achieve the other learner goals.

THE LEARNER WILL:

1. Build a substantial knowledge base.

Students will build a solid knowledge base developed from challenging subject matter in computer/information technology, environmental education, fine and performing arts, foreign language, health, language arts, mathematics, physical education, reading, science, social studies, and vocational education.

2. Develop thinking and communication processes.

Students will develop a command of thinking processes (analysis, creative thinking, problem solving, decision making, visualizing, concept development) that permit them to interpret and apply the knowledge base. Communication processes (listening, speaking, reading, writing, viewing, image making, and other symbolizing) enable them to communicate thoughts with others.

3. Apply knowledge and processes.

Students will build upon knowledge and apply learning processes to create new ideas and understandings, enhance human relations, expand awareness, and enrich human experiences.

4. Acquire the capacity and motivation for lifelong learning.

Students will develop their natural curiosity to acquire habits of inquiry and a love for learning which will motivate them to continue learning throughout their lives.

5. Develop physical and emotional wellness.

Students will acquire the attitudes, knowledge, and habits to grow physically and emotionally healthy, develop self-esteem and confidence, and exhibit a healthy lifestyle.

6. Develop character.

Students will exhibit personal characteristics, such as compassion, conviction, curiosity, ethics, integrity, motivation, and responsibility.

7. Be a responsible citizen.

Students will possess and exercise the knowledge and processes necessary for full participation in the family, civic, economic, and cultural life of a complex interdependent, global society. Students will acquire an understanding of the basic workings of all levels of government, including the duties and responsibilities of citizenship. Students will make a commitment to the basic values of our government, including reverence and respect for and the history and meaning of the U.S. flag, the Declaration of Independence, the U.S. constitution and the constitution and laws of this state, and acquire a knowledge of state, national, and world history.

8. Be prepared for productive work.

Students will acquire knowledge, capabilities, and attitudes necessary to make them contributing members of a dynamic national and world economy and prepare them for the transition from school to work.

9. Respect cultural diversity and pluralism.

Students will demonstrate the knowledge and attitudes necessary to understand and respect individual and multicultural diversity and to work cooperatively with all people.

10. Develop aesthetic awareness.

Students will become aware of and be able to generate those forms of experience that have artistic and aesthetic meaning.

INSTITUTIONAL SUPPORT GOALS

Institutional support goals have to do with the learning context and environment and are the means that support the achievement of learner goals. They include such things as adequate buildings, adequately prepared teachers, reasonable teacher planning time, and appropriate materials. Many of these factors have a direct impact on the classroom and the students. Institutional support goals deal with conditions that are within the control of the school district through its school boards and administrators, assuming that society has provided the necessary resources. If a goal affects the learning environment and is attainable without action by entities outside the local school district, it is called an institutional support goal.

To accomplish these goals and provide appropriate instruction, adequate resources, time, staff development, funding, technology, and facilities must be available. A governance model that encourages local decision making might better ensure that all parties play a role in deciding the allocation of resources.

INSTITUTIONS WILL:

1. Focus on academic achievement.

The primary mission of schools will include a focus on academic results to ensure that learning occurs.

2. Set high expectations for students and schools.

School staffs, parents, and community members must set high expectations so that all students will achieve the expected educational results.

3. Address the needs of all students.

Schools will recognize the widely varying circumstances and backgrounds that children bring to school and will design strategies and alternative programs to meet the changing needs and diverse learning styles of students.

4. Establish a climate of respect.

The school atmosphere will ensure that students and staff are treated with respect and dignity so that they respect others and so that students are better able to learn.

5. Provide a wide range of educational offerings.

Schools will offer a wide range of curricular and co-curricular activities so that students will have additional opportunities to learn teamwork, cooperation, and the application of learning.

6. Provide an active learning environment.

Schools will provide an environment in which students are actively engaged in learning that connects curriculum, instruction, and assessment.

7. Provide a positive physical setting for learning.

Schools will provide safe and stimulating environments conducive to active learning.

8. Meet the needs of professional staff.

Staff will have the resources, preparation, and encouragement to perform successfully. Staff should have adequate time and financial support for professional development, collaboration in course planning, strategy development, and innovation to meet the needs of children.

9. Establish family partnerships.

Schools will create an environment that seeks the active participation of families to maximize learning.

10. Promote collaboration within the school and community.

Schools and school boards will facilitate collaboration between and among all school staff and community members and connect the curriculum and delivery

SOCIETAL SUPPORT GOALS

Societal support goals, like institutional support goals, are the means that support the achievement of learner goals. If met, they ensure that students will have the necessary foundation to learn. They include such things as adequate health care, adequate nutrition, adequate funding for education, and safe, drug-free environments. These goals have significance beyond the educational community. Still, they have a crucial, if indirect, effect on children's learning. If children are not secure, properly nourished, or in good health, they will find it difficult to learn. If a goal requires action by forces outside the school district structure, it is called a societal support goal.

To accomplish these goals, society must make the commitment to invest in a quality education for all children, ensure that schools are staffed by well-prepared and caring personnel, invest its resources and leadership to ensure that children flourish, and provide support for families to provide a nurturing environment for their children.

SOCIETY WILL:

1. Make children its top priority.

Wisconsin will make the education and nurturing of all children its top priority.

2. Provide fair and adequate funding for education.

Society will act to resolve the disparities among school district financial resources needed to ensure that students, regardless of where they live, meet state educational expectations.

3. Provide safe schools, neighborhoods, and communities.

Society will promote drug- and violence-free schools and communities.

4. Ensure that children at all levels are ready to learn.

Society will provide support for parents and families to meet the ongoing nutritional, safety, physical, and emotional health needs of their children. Parents and families will instill in their children the importance of education.

5. Develop partnerships.

Society will develop partnerships between and among educators, students, parents, community, labor, business, industry, other educational institutions, and government agencies to better serve students and families.

6. Provide educational, cultural, and recreational opportunities.

Society will provide educational, cultural, and recreational opportunities that will enhance the quality of life and learning for all citizens.

7. Enhance educational equity through information technology.

Society will provide the necessary resources for schools to capitalize on information technologies such as telecommunications and computer networks to extend curriculum by using delivery systems such as distance learning.

8. Support local decision making.

The primary mission of state educational governance will be to support local districts, allow maximum flexibility for local decision making and innovation, and employ reasonable measures of accountability. The primary indicator of district effectiveness shall be academic results.

Wisconsin Learner Outcomes

The Department of Public Instruction endorses the following learner outcomes, which were developed by hundreds of educators and other community members from throughout the state. In order for students to demonstrate the outcomes, they will need a solid foundation in the academic subjects of language arts, mathematics, science, and social studies. The outcomes serve as a bridge between Wisconsin's Educational Goals, academic content, and student assessment.

1. **Identify, develop, evaluate, and apply criteria to ideas, products, and performances of one's self or others.**

This outcome requires students to be constructively critical of the work of other persons as well as that produced by one's self. A person should realize when such criticism is objective or subjective. Students should apply criteria developed by themselves as well as those developed by others.

2. **Revise a product, performance, system, and idea in response to relevant information.**

Relevant information might include additional data, changes in a situation, or feedback from experts, peers, or family members. Although the revision may make the item different than it was before, the intent is that the change results in improvement. The expectation is that students will consider all information presented and use that which will result in improvement.

3. **Make informed decisions by examining options and anticipating consequences of actions.**

Familiar sayings such as "look before you leap" and "think before you act" capture the essence of this outcome. Students should gather evidence and information relevant to some contemplated action, weigh the pros and cons of the potential results, and then choose the course of action.

4. **Achieve desired results by interpreting and executing instructions, plans, models, and diagrams.**

This means that students can follow directions in a variety of forms: written, spoken, pictorial, or represented as mathematical symbols. Following directions includes sorting things out when they are not clear as well as evaluating the successful attainment of the desired result. The actual result should be consistent with the intent of the direction-giver.

5. **Recognize and devise systems and describe their interdependence.**

A system is a set of elements that forms a unit or whole. Examples of systems include a musical composition, a game, a procedure designed to solve mathematics problems, weather, ecosystems, and monetary systems.

6. **Create a quality product, process, and performance to meet a need.**

This outcome is a tangible or visible thing or event. It includes paintings, musical performances and compositions, athletic performances, poems or essays, novels, or public policy.

7. **Respond to the aesthetic and intellectual aspects of an event, performance, and product.**

Although similar to outcome No. 6, this outcome focuses on a student's response to something someone else has done. Examples include an opinion, a critique, an essay, and a drawing.

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| <p>8. Transfer learning from one context to another.</p> | <p>Students should identify similar characteristics of two or more situations, objects, or events. Often these characteristics are not apparent, so students need to be analytical. This outcome also involves finding a practical application for a theory and creating new uses for existing products and applications of ideas.</p> |
| <p>9. Recognize, define, and solve a problem.</p> | <p>This outcome focuses on situations that are problematic because the solution is not immediately obvious. The student needs to formulate the problem and eliminate irrelevant information. The effective problem solver uses a wide range of strategies and can often identify multiple solutions.</p> |
| <p>10. Recognize and communicate one's strategies for accomplishing objectives.</p> | <p>Students should reflect upon and explain their own thinking processes. Those approaches should be shared with others.</p> |
| <p>11. Work effectively in groups to accomplish a goal.</p> | <p>Throughout life—at school, within the family, at work—people must cooperate with others to effectively complete a task or project. This does not imply that working independently is not valued; independent working skills are also necessary.</p> |
| <p>12. Defend a position by combining information from multiple sources.</p> | <p>The position or point of view being defended could be one's own or that of another person or group. The position may be of a social, political, environmental, economic, or hypothetical nature. Students must gather information from a variety of sources and then blend that information with their own knowledge to create an argument in favor of a position.</p> |
| <p>13. Develop and test a hypothesis.</p> | <p>A hypothesis is a guess about a rule or relationship among a collection of events, objects, or ideas. Students should devise a plan to identify and collect data, then interpret and use those data to determine whether or not the guess is correct.</p> |
| <p>14. Recognize when a need for specific information exists and demonstrate the ability to locate, evaluate, and use the relevant information.</p> | <p>Students must be able to consult a recognized authority, to extract information from library sources, and to access electronic data bases. This outcome requires students to consider all information, eliminate that which is irrelevant, and then organize what is left into a usable form.</p> |
| <p>15. Conceive of places, times, and conditions different from one's own.</p> | <p>This outcome includes real as well as fictional places, times, and conditions. Students should think about life as it existed in the past as well as thinking about how it might be in the future.</p> |
| <p>16. Identify personal interests and goals and pursue them.</p> | <p>Students should work persistently over time on ideas, activities, projects, and goals that reflect their abilities, talents, and interests.</p> |
| <p>17. Recognize the influence of diverse cultural perspectives on human thought and behavior.</p> | <p>The term "culture" includes groups that share a common history or have a linguistic, racial, geographic, social, or occupational bond that may affect the way people act. Examples include the civilizations of ancient Greece; the Incan Empire; and Hispanic, African, or Asian cultures.</p> |

From Goals and Standards to Curriculum

When national standards were being developed, they were characterized as "what every student should know and be able to do." But it soon became clear that the standards were collectively more than could reasonably be expected of any individual student to learn. What the standards are is a cumulative picture of what society believes its collective citizenry should learn in school. With the accumulation of knowledge generally believed to be doubling every 18 months, it has become futile to pursue an educational goal of knowing something about everything. There is no uniform body of knowledge or set of skills that students must know and be able to do at predetermined developmental levels.

The pursuit of a common core of knowledge is reminiscent of the *melting pot* theory of American acculturation when people were expected to shed their ethnicity and become "Americans." As concepts of diversity and cultural pluralism developed, the national metaphor became a "salad bowl" where everyone kept their identity but lived and worked together. Educational theory supports this change in the national consciousness by moving beyond the concept of standardized testing and national curriculum. Rather than trying to ensure that students get to the same place at the same time, students should be encouraged to follow their diverse interests to the highest levels of complexity their abilities allow. Those levels will be much higher than people ever imagined.

Integration of *instruction* is taking place in education so that individualization of *learning* can take place. Thematic instruction, for example, allows students to bring their own interests, aptitudes, learning styles, and ways of knowing to bear on the issues and concerns. High standards can be achieved when individual students are encouraged to pursue them in areas in which they have interests and aptitudes. Expecting students to reach high achievement standards in every area of the content standards is an unattainable goal and can lead to lowering achievement. The standards should not be an instrument for homogenizing learning. Allowing students to identify their interests and abilities and pursue them leads to higher overall standards.

The purpose of this guide is to help local districts develop their own goals and standards for visual arts education and to write curriculum that will help students fulfill those goals and standards. Curriculum developers should align curriculum with district goals and standards to help make decisions about what to include and what to exclude within the finite time and resources available. Are there any goals or standards that are not being addressed by the curriculum? Why? Are there any parts of the curriculum that do not address one or more of the district's goals and standards? Why? Chapter 2 presents a unified theory of art education that outlines Wisconsin's approach to visual arts programs.

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10



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Evaluation and Decision Making

Efforts to provide a challenging curriculum that reflects national, state, and local standards and goals can be undermined by an assessment system that is nonexistent or focuses on too narrow a range of skills. When looking at an evaluation program, the first questions that need to be asked are, What is the purpose of the assessment? and What do educators want to do with the results? Two of the biggest mistakes with assessment are misinterpreting and misusing data. Assessment results can be used (or misused)

- to diagnose student strengths and areas needing improvement;
- for making comparisons with other grades, schools, states, or countries;
- for reporting student progress to the student, parents, or others;
- to shape curriculum;
- to assess instruction;
- for cumulative documentation;
- to help group students; and
- to determine advancement, admissions, scholarships, or other "high stakes" decisions.

Assessment development and administration involves several steps, and mistakes can be made at any point along the way that can lead to invalid results or inappropriate applications. Some factors in the development of an assessment tool include

Establishing Content Standards. What should students know and be able to do? The national standards and state goals and outcomes give some answers to this question. Establishing content standards leads to appropriate matching of the assessment with important learning.

Selecting Assessment Content. What parts of the total content can or will be selected for assessment?

Designing and Developing the Assessment Instrument. What assessment techniques are appropriate to determine what the students know and are able to do? Is a paper and pencil test an appropriate means to assess a student's artistic ability? Probably not. But it might reveal the students knowledge about art. Four major assessment tools are paper tests, performance measures, portfolios, and demonstrations. A major concern of an assessment measure is reliability.

Administering the Assessment. When, where, by whom, and to whom will the assessment be given? How long will it take? Are special needs students included? What about second language students or those with low reading ability?

Scoring the Assessment. How will the assessments be evaluated and scored? (A 1970s National Assessment of Educational Progress Test in Arts was developed and administered that was never actually scored.) Who scores the assessments? Is the scoring reliable? Might different scores be produced by the same results?

Interpreting the Results. What do the scores mean? Is a "B" okay? Can a student get into college with a 92 percent? Should this student repeat fourth grade? Have the students learned what they are supposed to do?

Reporting the Results. What will be reported, and to whom will results be reported? Is the whole assessment reduced to a number score or letter grade? Are the results sent to parents? Should parents come in and talk to the teacher? Are the scores part of the public record for all to see? Do they appear in the newspaper?

Using the Results. What will be done differently as a result of the assessment? Too often so much energy and money goes into the assessment that there is little time or few resources left to improve instruction. Folk wisdom tells us that taking someone's temperature does not cure a cold.

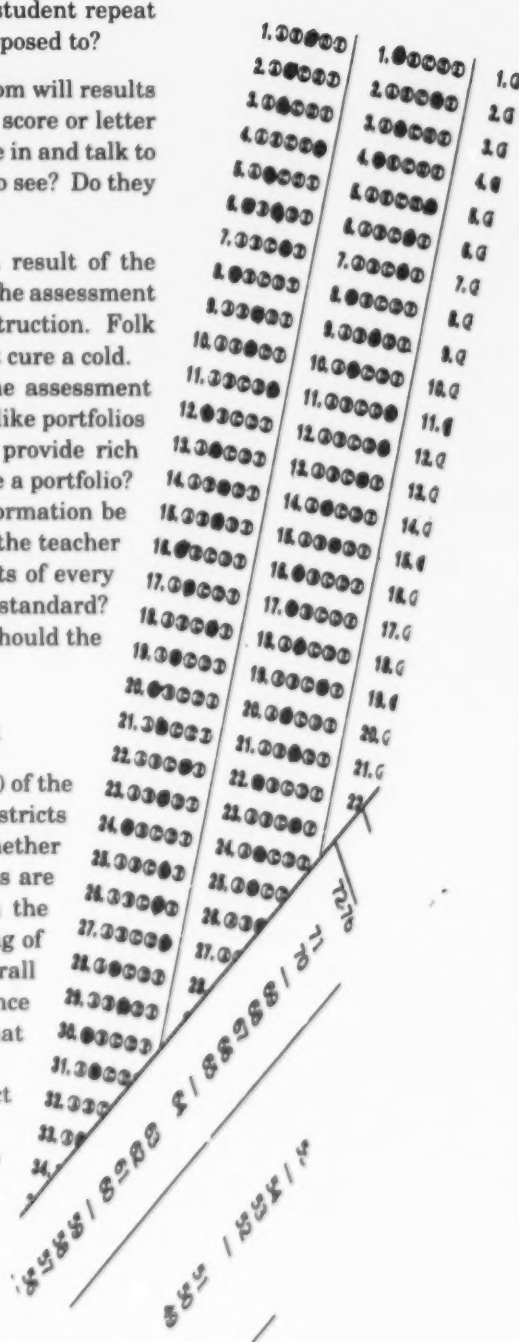
It is important to have a clear plan for each part of the assessment process because one part affects the others. A teacher may like portfolios as an assessment instrument, for example, because they provide rich information accumulated over time. But, how does one score a portfolio? When the time comes to report to parents, can all that information be reduced down to a letter grade? If not, how much time can the teacher devote to providing rich, detailed information to the parents of every child he or she teaches? And what if a student's work is below standard? Is that a reflection on the student or on the teacher? How should the results be interpreted?

Developing a District Evaluation Plan

In the administrative rules PI 8.01 (2) (k) for standard (k) of the *Wisconsin Educational Standards* (Wisconsin DPI, 1991), districts are required to have an objective process for determining whether pupils attain the specified goals of the curriculum. Districts are also required to include a program evaluation method in the curriculum plan that provides for the continuous monitoring of components of the sequential curriculum plan. The overall program evaluation method should be reviewed at least once every five years and revised as appropriate to ensure that pupils meet the curriculum objectives.

Some characteristics to consider in developing a district evaluation plan include the following:

- The assessment should be part of the instructional process and designed to improve learning.
- Assessment should be as relevant to the learning experience as possible and set high quality expectations.
- Assessment should fit the learning styles, interests, and aptitudes of individual students with clear and public tasks, procedures, and criteria.
- Assessment should lead to clear and reasonable benefits for student learning. Assessment should be backed up by equivalent or greater expenditures of time, energy, and money to make improvements.



- Assessment results should be used responsibly. Individual results should not be public and inferences should not exceed conclusions warranted by the results.
- Assessment should be ongoing and multidimensional.

Alternative Assessment

Due to a growing dissatisfaction with the value of standardized testing as a sole means of assessment, alternative assessment procedures are being explored. Alternative assessment proposals include performance testing, authentic assessment, portfolio assessment, process testing, exhibits, demonstrations, and a variety of others. Most alternative assessments are performance based in that they require students to perform, create, produce, or do something. They seek to measure higher-level thinking and problem-solving skills rather than memorization of information. They use tasks designed to engage students in meaningful instructional activities and approximate real world applications. They often involve the judgment of evaluators rather than scoring by machines, and the teaching, learning, and assessment roles are redefined to allow assessment to be part of regular instruction (Herman, 1992).

Alternative assessment tries to minimize unintended negative effects such as constricting the scope of learning or penalizing students with different learning styles. Assessments should be aligned with the curriculum and measure meaningful content rather than that which is easy to test. The integrated instruction-assessment process should include quality content, meaningful tasks, and essential learning.

Authentic Assessment

Assessment instruments need to measure what is most important to the art form or art activity and use a mode of assessment that matches the mode of artistic work being assessed. A written test, for example, is not a good measure of artistic production ability. Authentic assessment of production in studio art should be based on artwork students do when not responding to a direct assignment. Assessment in the design arts can be based on solving a visual communication problem. Art history assessment should determine the ability of students to investigate and write an original historic account of an art or design event or object. This assessment may include the ability to put together an art exhibit with appropriate documentation. Art criticism is the ability to write an original interpretation of an art or design event or object. This assessment may include the ability to be persuasive in a public forum. An assessment in aesthetics should be based on the ability to write a clear, insightful discourse that causes others to look at an aesthetic issue in new and useful ways. This assessment may also include the ability to understand and respond effectively to the discourse of others.

For some aspects of art, the assessment must be open-ended because the end product is invented as part of the process and the results cannot be predicted beforehand. The assessment cannot be based solely on factors such as skill, neatness, or completeness, but must include some measure of investigation, experimentation, invention, and risk.

In the innovative aspects of art learning, often no single correct answers exist. People sometimes mistakenly interpret this to mean that there are no wrong answers in art. While many successful solutions to an artistic problem may exist, some attempts are unsuccessful. The assessment process should encourage revision. Authentic assessment is an ongoing and continuous aspect of learning rather than a final appraisal. Students should use assessment to reflect on their work and as a tool to develop their work further. Authentic assessment requires self-assessment, not only outside opinions. Multiple forms of assessment should be used in this process, such as critiques, reviews, everyday conversation, peer comments, classroom discussion, questions, revisions, works in progress, finished products, portfolios, interviews, journals, notes, drafts, and demonstrations.

Dennie Palmer Wolf and Nancy Pistone have a good overview of alternative assessment ideas for the arts in *Taking Full Measure: Rethinking Assessment Through the Arts*. They discuss such topics as considering assessment an "episode" of learning; making assessment criteria visible to the public; improving classroom discussion; rehearsal, performance, and portfolios as assessment tools; and how the arts can inform assessment in other disciplines.

Demonstration

Limited-response written tests, on-demand performance tasks, and presentation of portfolios are methods for attempting to assess the future potential of students, but they are not the only methods. Demonstration is a source for assessment that reflects as closely as possible the ways in which people determine quality and accomplishment among professionals in the field. Demonstration focuses not so much on what students know and are able to do but on what they actually do. Demonstration assessment is the method to assess Wisconsin Learner Goal 3—*apply knowledge and processes*. This goal, which goes beyond what students know and are able to do, is unique, because it sets a direction for demonstration assessment by identifying four areas of demonstrated work.

Students are expected to build on knowledge and apply learning processes to (1) create new ideas and understandings, (2) enhance human relations, (3) expand awareness, and (4) enrich human experiences. In the first instance (create new ideas and understandings), students are expected to develop their own ways to add to the knowledge and information base. They are expected to come up with new ideas and demonstrate new ways of understanding the world. Under point two (enhance human relations), students are expected to enhance the way people interact with each other. Students, for example, should be concerned and actually do something about how females and minorities are treated in halls and classes of the school. In point three (expand awareness), students should develop ways in which they and others can expand their perceptual and mental abilities. People's brains, like new generations of computers or athletes' bodies, should be made faster, more powerful, and more fully functional by purposeful design. In point 4 (enrich human experiences), students should add to the general quality of life for themselves and for others. The world should be a better place as a result of some quality action taken by each student.

These are not trivial undertakings when one considers the unsolved problems with drugs, violence, environmental degradation, poor quality of life, urban decay, poverty, torture, imprisonment, racism, sexism, unemployment, starvation, homelessness, and despair. The best minds and the people with the most power and influence in the world have, so far, been unable to solve these problems. Students should demonstrate that, as a part of their school experience, they not only learned from the past but added to the storehouse of useful knowledge and ideas, not only stayed out of trouble but helped other people get along better and have better lives, not only got good grades but became smarter and were able to think in ways they could not before, and not only managed to get by but improved the quality of their own lives and the lives of others along the way.



Evaluating Reading and Writing in Art

Students should be able to read, understand, and respond to articles about art in magazines, newspapers, and books. By the time they reach high school, they should know enough of the basic vocabulary and concepts to read an article about art, architecture, or design in a newspaper like the *New York Times* or a magazine such as *Time* or *Newsweek*. Students who expect to continue in art should be able to read and understand books about art and articles in art magazines like *Art Forum* and *Print* magazines.

Students should have experiences in writing and publishing art criticism, art history, and aesthetics. Local works of art, architecture, or design should be examined by students and used as an opportunity for hands-on critical, historical, and aesthetic learning. This can range from writing short articles in school newspapers to writing actual reviews in local newspapers or magazines. The curriculum should provide learning experiences for students at the early grades that will lay the foundation for more advanced writing in the upper grades.

Action Research

Action research, or teacher initiated inquiry, is the idea that disciplined inquiry (research) can be conducted in the context of the classroom or school to improve the quality of education (action). It is one of the most valuable ways to obtain rich, contextual data to improve instruction in the arts, and it also supports site-based management initiatives. Individual teacher research can be conducted by the teacher alone with his or her students. Collaborative action research can be conducted with local professors, college students, and school district research staff. The main feature is that the research focuses on teachers in the context of ongoing instruction.

Teachers conduct informal versions of action research on a regular basis, but action research simply formalizes the process and institutes some more organized controls and procedures. Teachers collect data, form a hypothesis, test the hypothesis, analyze the results, and take appropriate action. Often this occurs in conjunction with a college class the teacher is taking. The value of action research is not only in the results of the study, but in the process of inquiry, which creates the climate of an active learning community in the classroom and school. It is good for students, colleagues, and administrators to be involved in and see scholarly inquiry in action.

Teachers may want to conduct action research on questions such as, Do portfolios improve instruction in art? or Does research on painting styles improve students' paintings?

Testing

Traditional paper-and-pencil tests are being reconsidered in favor of alternative assessment methods in areas such as mathematics, science, and language arts. Traditional testing is faulted for encouraging educators to focus too narrowly on improving test scores rather than attending to quality learning. In an old television show called *Kung Fu*, the master teacher told the young martial arts student "When you can snatch this pebble from my hand you will be ready to go." Although no part of the young student's training involved practice in snatching pebbles, after years of martial arts study to increase his speed, concentration, and control, the student found that he could indeed snatch the pebble from his master's hand. This test was simply an indicator of much deeper and more meaningful learning. Too many students and their teachers miss the point and spend their time practicing pebble snatching rather than engaging in real learning.

Grading

Teachers are encouraged to minimize the use of grades to evaluate student art work. A letter grade or number score is not descriptive feedback useful to the student, takes away the student's responsibility for self-evaluation, and undermines the teacher's relationship as a mentor to the student. Other forms of feedback are less damaging and serve better educational purposes. Written comments, narrative evaluations, verbal comments, and student-teacher conferences provide richer and more useful feedback to help students improve their work without taking away their responsibility to establish and maintain personal criteria.

Drawbacks to using alternative feedback methods include that they are more time consuming and difficult; graduation or college-entrance requirements call for grades; students and parents expect grades; and grading is a time-honored tradition of schooling. These objections will need to be addressed over time as more alternative reporting procedures are phased in.

Approaches to Assessment

The Wisconsin Student Assessment System (WSAS)

The Wisconsin Student Assessment System (WSAS) does not include state-wide assessment in the arts, but it does provide a model of a three-part assessment system that can be used as a basis for district assessment in the arts. The three parts of WSAS are limited response (paper and pencil) tests, performance assessment, and portfolio assessment.

Knowledge and Concepts

The knowledge and concepts tests are limited response, paper and pencil instruments primarily using multiple choice, short answer, true or false, and matching types of items. They are being developed for Wisconsin by the Psychological Corporation, the developers of SAT exams. The most comprehensive model for this type of test in the arts is the National Assessment of Educational Progress (NAEP), which is described later in the chapter.

Performance Assessment

Some of the outcomes difficult to assess by paper and pencil measures can be captured in the performance assessment portion of the Wisconsin Student Assessment System. Five of Wisconsin's Learner Outcomes that do not lend themselves well to assessment with paper and pencil measures include creating a quality product, process, and performance; responding to aesthetic and intellectual aspects of an event, performance, and product; conceiving of places, times, and conditions different from one's own; identifying personal interests and goals and pursuing them; and recognizing the influence of diverse cultural perspectives on human thought and behavior.

Performance tasks can help determine what students are able to do and are most appropriate for outcomes such as creating a quality product, process, and performance. Performance assessments are being developed for Wisconsin by the Wisconsin Center for Education Research (WCER). Performance assessment instruments might include having students create an exhibit, display, sketchbook, journal, log, portfolio, videotape, book, folder, kit, packet, poster, workbook, binder, or game that demonstrates skills, knowledge, and understanding in the arts.

Portfolio Assessment

Some outcomes are difficult to assess by either paper and pencil tests or performance assessments. Portfolio assessment may be one of the best available measures for an outcome such as identifying personal interests and goals and pursuing them. Portfolio assessment should be used to assess *all* of the Wisconsin Learner Outcomes. But it could be especially designed to address this particular outcome because this outcome is difficult to address with the other assessment components and is ideally suited to portfolio assessment methods. It is important to include this outcome in student assessment so that individual differences in students are recognized and provided for, and so students are helped to develop habits of lifelong learning based on personal interests and abilities. Portfolios are most effectively used as part of regular instruction at the local school and district level. A district could approach portfolio assessment much as it does curriculum development under standard (k) simply by verifying the existence of the assessment and the inclusion of a limited list of components based on the Learner Outcomes. Additionally, portfolios provide valuable information as a student begins to explore future career options.

The district learner portfolio assessment component could consist of a simple statement to the effect that *Students will maintain a portfolio of work created over time as a part of regular instruction in the schools. Materials in the portfolio will demonstrate each student's pursuit of personal interests or goals.*

Guidelines for the portfolios would incorporate all of the other Wisconsin Learner Outcomes by stipulating that the following be included in student portfolios:

Individual work samples that demonstrate the outcomes:

- Recognize, define, and solve a problem.
- Achieve desired results by interpreting and executing instructions, plans, models, and diagrams.
- Create a quality product, process, and performance to meet a need.
- Transfer learning from one context to another.

Group work samples that demonstrate the outcomes:

- Work effectively in groups to accomplish a goal.
- Recognize the influence of diverse cultural perspectives on human thought and behavior.

Preparatory research that demonstrates the outcomes:

- Recognize when a need for specific information exists and demonstrate the ability to locate, evaluate, and use the relevant information.
- Recognize and devise systems and describe their interdependence.
- Conceive of places, times, and conditions different from one's own.

Preliminary work that demonstrates the outcomes:

- Develop and test a hypothesis.
- Make informed decisions by examining options and anticipating consequences of actions.

Revisions that demonstrate the outcome:

- Revise a product, performance, system, and idea in response to relevant information.

Reflection (essays, journals, tapes, or videotapes) that demonstrates the outcomes:

- Recognize and communicate one's strategies for accomplishing objectives.
- Respond to the aesthetic and intellectual aspects of an event, performance, and product.
- Defend a position by combining information from multiple sources.

Self-evaluation that demonstrates the outcome:

- Identify, develop, evaluate, and apply criteria to ideas, products, and performances of one's self or others.

Students and teachers should work together to compile portfolios over time for each student. Students should maintain an ongoing table of contents or inventory of the contents of each portfolio that indicates which of the above components can be found in the portfolio. Copies of these inventory sheets should be maintained for each student by the school or district.

This method of portfolio assessment is manageable, cost-effective, and minimally intrusive. It will help to improve instruction because schools are encouraged to provide opportunities for all students to apply learning in meaningful contexts relevant to their individual interests and abilities. As



Raymond Gloeckler, *Big Biker*, 1971
Wood engraving
Collection of the Elvehjem Museum of Art
Charles E. Merrill Trust Fund Purchase

a result, students will be able to see a direct connection between learning and their own interests and goals. The result of this contextual learning is likely to be improvement in learning achievement, attendance, and student success. These improvements will be reflected in a more complete assessment of what students know and are able to do.

Arts PROPEL Assessment

As discussed earlier in chapter 7, Arts PROPEL is an integrated approach to teaching and assessment in which assessment is considered a central part of instruction. Some features of the Arts PROPEL model of assessment include assessment in the domain (discipline), assessment in many dimensions, and assessment as an episode of learning. The domain of art determines the central territory for assessment. The assessment should look directly at skills and principles essential to thinking in the arts, such as craftsmanship, originality, willingness to pursue a problem in depth, development of work over time, ability to work independently and in a group, ability to perceive qualities in a work, and ability to think critically about one's work. The assessments should reflect the rigorous standards routinely applied to the professions in the arts as valid fields of intellectual endeavor.

Assessment should provide a profile of the strengths and weaknesses of student work rather than a single score. Teachers should work with colleagues and the students themselves to develop a range of assessment instruments. Students should participate through self-evaluation, group discussion, and frequent teacher-student communication. The assessment should help build self-esteem by highlighting what students have accomplished, and stimulating discussion, revision, and improvement throughout the creative process, rather than just at the end.

Assessment should be a daily exercise rather than a final judgment. Students and teachers should work together to set standards of performance and evaluate how well they are being achieved. This process not only tells how students are doing but fosters learning as well. The end product alone does not show all the growth a student experiences along the way.

National Assessment for Educational Progress (NAEP)

The National Assessment for Educational Progress is a nationally representative, continuing assessment of what U.S. students know and can do in various subject areas. NAEP is a congressionally mandated project of the National Center for Education Statistics, U.S. Department of Education. In 1988, Congress created the National Assessment Governing Board (NAGB) to set policy for NAEP. The 24 member board is responsible for selecting subject areas to be assessed, developing assessment objectives and specification through a national consensus process, and setting appropriate achievement goals, among other responsibilities.

NAEP gathers information from a nationally representative sample of students to provide results for the nation. Trial assessments have sometimes been used to report achievement at the state level in some subjects for states choosing to participate. NAEP assessments are guided by assess-

ment frameworks that are written descriptions of what students should know and be able to do in grades 4, 8, and 12.

The NAEP Arts Education Consensus project was administered by the Council of Chief State School Officers (CCSSO). Wisconsin was one of 15 states to participate in writing exercises for the 1997 National Assessment for Educational Progress in the Arts. The Wisconsin team included a high school art teacher, elementary art teacher, an architect, and a museum education curator who developed performance assessment items.

State Collaborative on Assessment and Student Standards (SCASS)

In 1993 a national assessment project for the arts was begun as part of the State Collaborative on Assessment and Student Standards through the Council of Chief State School Officers (CCSSO). The SCASS Arts Education Assessment Consortium consisted of some twenty states whose representatives met about four times a year to develop K-12 assessment measures in each of the arts areas. The consortium explored a variety of assessment strategies including multiple-choice, open-ended short answer, performance, projects, portfolios, and so on. This consortium worked in close contact with the National Standards in the Arts Project and the National Assessment for Educational Progress (NAEP) in the Arts. The representatives developed prototype exercises and appropriate scoring rubrics.

Advanced Placement Art

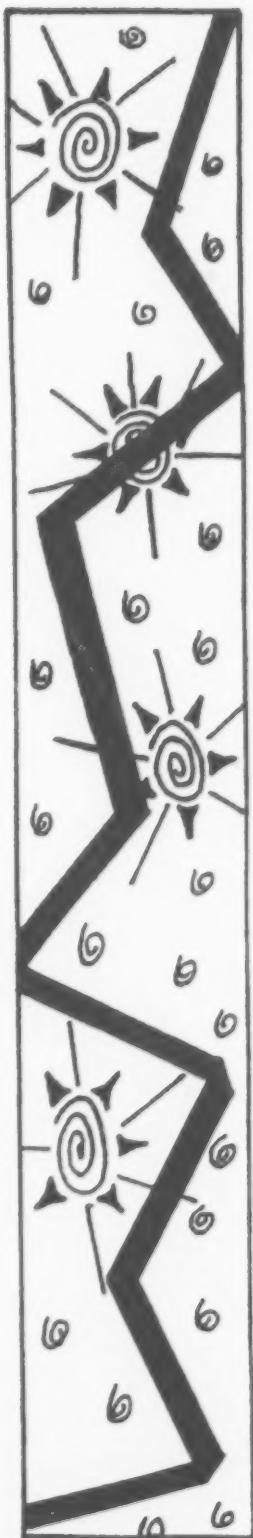
One way to determine how well the curriculum is working in a school is to use an outside measure, such as how students perform on the Advanced Placement Exams in Art. High school seniors can participate in the Advanced Placement Programs in studio art and art history offered by the College Board. This will give teachers an indication of how students are doing in relation to an outside measure. Students who do well on these measures can receive credit that they can apply toward college level course work.

In the studio art components (drawing and general) of Advanced Placement Art, students submit a portfolio of work according to guidelines provided by the College Board. Students interested in continuing in art should compile a portfolio anyway, so this program offers opportunities for students and teachers to develop and evaluate portfolios.

In the art history component of Advanced Placement Art, students can take a written exam on art history from ancient to modern times. Good scores on this exam can also be used toward college credit or advancement into higher level courses in college. This is a good way for students and teachers to find out their level of knowledge in art history.



Jack Beal, Self-Portrait, 1974
Lithograph, 27" x 20 1/2"
Collection of Madison Art Center
Purchase



Visual Arts Classic (VAC)

Visual Arts Classic is a regional and state competition for teams of high school students that is sponsored by the Wisconsin Art Education Association. VAC includes individual and team events in art production, art history, art criticism and aesthetics. VAC is a good opportunity to meet students and teachers from other districts, promote interest in art education programs, and find out how well students can do in comparison to other school art programs.

As part of the Visual Arts Classic, students participate in a team problem solving event that assesses their knowledge and skills in addressing real-life issues in the world related to aesthetic decision making and critical thinking in the arts. The event changes each year but is designed to include certain characteristics.

1. Students work in teams to solve the problem.
2. The problem is one that people actually encounter in real-life situations.
3. The problem focuses on critical thinking and aesthetic decision making rather than knowledge of history or production skills.
4. The solution must be communicated using writing, speaking, and visual skills.

Assessment of the results focuses on questions such as

1. Did the students work as a team to solve the problem?
2. How many pertinent issues did the team consider and how thoroughly were they addressed?
3. What important issues did the team fail to address?
4. What was the quality of the presentation of the solution?

Examples of tasks include

1. You are the city planning committee for a small town undergoing revitalization of its main street. Using illustrations of the main street, make recommendations on how the visual appearance could be improved. Prepare a 15-minute presentation for the city council and a public hearing. (Wisconsin's Main Street Program has materials relating to this problem.)
2. You are a board member of a museum that is receiving criticism for a controversial art exhibit in the museum. After reading the complaints from a member of the clergy, a government official, a business person, a patron threatening to withdraw financial support, a concerned parent, an art critic, an artist, and others, decide what you will do about the exhibit and how you will respond to the criticisms. Prepare a 15 minute press conference to present your response. (Examples of criticism were drawn from actual events surrounding a controversial exhibit.)
3. You are a member of the selection committee for a Percent-for-Art project. After looking at slides of several artist's work, photos and drawings of the proposed site, and other related materials, decide which artist to select for the site and provide an explanation of your choice. Prepare a 15 minute report for a public hearing about the project. Try to answer questions that might be asked about the quality, cost, and purpose for the work of art. (Slides of the artwork were loaned by the Wisconsin Arts Board from actual Percent-for-Art projects.)

4. The environmental artist, Christo, is planning to do his next large-scale artwork in your area. You are a member of the city council and must consider the economic impact, environmental concerns, safety, aesthetics, cultural issues, and other concerns such a project might create. Write the letter the city council will send to Christo accepting or rejecting his request. In the letter, explain the reasons for your decision. Share the notes your committee took during the discussion that reveal the process of the meeting. (In this case, teachers had met and talked with Christo at a state conference.)

Academic Decathlon

The Academic Decathlon is a regional, state, and national competition covering a variety of skill and subject areas. One area is usually the fine arts, so this provides an opportunity for schools to find out how their students are doing in learning about art. Guidelines and practice materials are available from the United States Academic Decathlon, which is listed in the resources section in appendix G. Results in this competition often reflect the imbalance in educational programs, because students who perform strongly in other areas often do poorly on the fine arts portion.

Exhibiting Student Art Work

Exhibitions of student art work are often used as measures of how the school art program is doing. When student work is exhibited, there should be explanatory text to help others understand the significance and intent of the work on display. Students who intend to continue in art should have additional opportunities to mount one-person or group shows in preparation for future study.

Scholastic Art Awards

The Scholastic Art Awards Program is conducted nationally by Scholastic, Inc. for students in grades 7 through 12. This is a juried art show with top state winners sent on to the national level competition. The Wisconsin contact is the Education Department of the Milwaukee Art Museum.

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11



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Advocacy

Since most community members have had little education in the arts since sixth grade and much has changed in the arts and arts education since they were in school, there is no reason to expect that they know what an art program today consists of or should be like. Part of an art teacher's responsibility is to educate colleagues, parents, administrators, and community members along with the students. One step in the right direction is to include information about the concepts and goals of the art program along with exhibits of student work so people have a chance to understand the student artwork.

People are taught to value or not value the arts. If community members do not value the arts, they will not support them in schools. The arts need to have repeated, ongoing exposure as a part of regular instruction rather than as special events. Many festivals and exhibits launched to promote art education programs fail to cause positive change in the community, because they give the public the impression that students are receiving ongoing quality instruction in the arts. Events designed to show how well the arts are doing in the schools often mask the reality of inadequate student access to regular instruction by qualified art teachers. Advocacy efforts, like any publicity campaign, must have a clear concept of the message to be sent. Teachers must be aware if the message they communicate is, "The art program is doing fine and all students are learning about art," or "The art program is understaffed, underfunded, and lacks adequate class time to meet goals and objectives of the district art curriculum."

Many art teachers feel ill-prepared to engage in advocacy efforts that focus on interpersonal and verbal communication skills. They shy away from organized political activities and need to be trained in methods of interacting with the community and maneuvering successfully in the public arena. Advocacy efforts are not for the benefit of teachers but for all of the students who are not receiving adequate access to instruction in the arts in school. Professional organizations such as the Wisconsin Art Education Association, the National Art Education Association, the Wisconsin Alliance for Arts Education, and the American Council for the Arts are good sources for information on carrying out ongoing advocacy efforts for the arts. The Wisconsin Arts Board, Wisconsin Department of Public Instruction, Wisconsin Alliance for Arts Education, and University of Wisconsin-Madison Department of Continuing Education in the Arts formed a coalition called Partners in Arts Education to encourage, promote, and facilitate programs and activities that will ensure sequential instruction in all of the arts as an integral component of every student's education.

Administrators and School Boards

The National Art Education Association (NAEA) and the Getty Center for Education in the Arts each produce materials to help administrators, school boards, and citizens understand the role and value of art education. NAEA has a variety of flyers for different groups to explain the importance



of art education and provide suggestions to help improve district support for art instruction in the schools. In 1993, NAEA distributed over 40,000 copies of the booklet *School Art Programs: A Guide for School Board Members and Superintendents* about quality art education programs to school administrators and school boards. The Getty Center produced videotapes, flyers, and other material that were included in separate packets sent to every school administrator, school board, and state legislator in the United States in 1992-93. The materials for school boards were called *More Than Pumpkins in October: Visual Literacy in the 21st Century*. Those for Parent Teacher Associations were called *Be Smart. Include Art*. And those for state legislatures were called *Reinventing the Wheel*.

Family-Community-School Partnerships

The support and participation of family and community members in helping children learn has always been regarded as a factor in children's school success. But only in the past decade or two have researchers documented the evidence well enough to focus significant attention on the profound influence that parents, families, and citizens have in helping children learn and grow. Part of the renewed public attention to this area is due to a phenomenon that art educators and practitioners have long realized: that learning takes place everywhere—in school, at home, and in the community. The attitudes and reactions of young children to the world around them are profoundly colored by what they see and how their parents interpret it.

One goal of family-community-school partnerships is to help parents realize their importance as the child's first teachers and continue their involvement in and support of learning as the child progresses through school. Another goal is to offer community members a chance to share their life experiences with young people.

Joyce Epstein (1992) of Johns Hopkins University, describes six ways that schools can invite family and community participation in children's learning:

- parenting—to help all families develop skills to raise their children;
- communicating—to design more effective forms of communication to reach all families;
- volunteering—to recruit and organize parent help and support;
- learning at home—to provide ideas to families on how to help children at home;
- representing other parents—to recruit and train parents to participate in school governance and advocacy; and
- community outreach—to establish partnerships with individuals and organizations in the community.

Meaningful community involvement is a two-way street. Educators must increase their commitment to involve all community members in the educational decision-making process. Educators need to obtain the skills necessary to collaborate with the community and must be willing to relin-



quish authority. Parents, families, and citizens should establish ways to join teachers to help their children learn (Potts, 1992). Appendix F provides more information on family-community partnerships with the schools. Educators can also do some of the following activities to include family and community members in the child's artistic development and to expand the learning arena from the school building to the home and community:

- invite local artists to talk about their work or do a classroom art project with students.
- host a "Family Art Night" at school, inviting parents and children to do a hands-on activity together.
- organize an art project in the community involving students and community members, perhaps as part of a beautification effort.
- visit sites in the community where art is portrayed in an historical or natural context.

The following list, from the DPI's *Families and Education: An Educator's Resource for Family Involvement*, offers additional tips to help families encourage the arts for their children.

- Encourage and praise children so they gain self-confidence.
- Provide a variety of materials for children's art projects and an appropriate place for them to work on art. Include materials for various mediums such as paints, chalk, clay, paper, beads, metals, plastic, and others.
- Visit art museums where children can see a variety of art styles.
- Watch TV shows with children that focus on art topics.
- Provide opportunities for children to attend live music and dance performances.
- Visit ethnic fairs and cultural performances in the area.
- Encourage children to display artwork and perform music, dance, and drama for groups, in and out of school. Display and share children's artwork in the home.
- Help children understand that developing skills in the arts is a slow and demanding process and that patience and persistence are important traits for success.
- Visit teachers to find out what cultural arts are addressed, and ask how you can enhance your children's learning.
- Accept and praise children's creations, realizing that even undeveloped scribbles and poorly proportioned drawings represent a necessary and important stage in children's development.
- If children are interested, enroll them in local arts, crafts, music, dance, and theatre classes.
- Help children understand and accept the responsibility of being a member of theatrical or musical organization by ensuring attendance at rehearsals and concerts.
- Ask children what they feel about certain art expressions without passing judgment on their feelings so they feel free and safe in sharing themselves.
- Remember that the opportunities one gives children to learn about the arts are lifelong gifts.

Teacher Preparation

Preparation for teaching involves a variety of knowledge areas, attitudes, and skills. Teachers must have an interest in students and possess the belief that all students are capable of learning. They must be able to teach in a variety of modes and manage student learning. They must have a deep knowledge of art, including history, production, aesthetics, discovery, and criticism in the studio arts, design arts, art and society, and visual learning. Teachers must be learners themselves and model characteristics of good learners, such as curiosity, creativity, problem solving, collaboration, and collegiality. Sometimes being an active learner is narrowly defined as being a producing studio artist, but it may also include involvement with museums, galleries, exhibits, and writing or research about art.

Teacher program approval rules for art appear in chapter PI 4.19 of the Wisconsin Administrative Code, found in appendix E. Wisconsin's art teacher preparation rules parallel the National Art Education Association's guidelines, which are outlined in a brochure available from NAEA. Standard (a) of the Wisconsin School Standards is designed to ensure that, before beginning a position, every art teacher holds a certificate, license, or permit to teach issued by the Department of Public Instruction. Two sets of rules spell out the standards for certification in Wisconsin. PI 3 is the certification rules and PI 4 is the program approval rules. Each professional education program offered by an institution in Wisconsin must meet the requirements of PI 3 and PI 4, but may exceed these minimums as determined by the institution. About 50 colleges and universities in Wisconsin provide art education programs. Each of these programs is reviewed by the Department of Public Instruction at least once every five years.

Professional Development

In a rapidly changing world, commitment to ongoing professional development is a virtual necessity. Teachers are required to have six credits of additional college level education every five years to maintain their teaching certification. With professional development programs available through the Department of Public Instruction, the Wisconsin Art Education Association, the Wisconsin Alliance for Arts Education, UW-Madison's Department of Continuing Education in the Arts, the Wisconsin Arts Board, colleges and universities, and a variety of regional organizations, Wisconsin has some of the most active professional development programs in the country. Most of these short-term programs should be considered only a part of a comprehensive, ongoing professional development program. Follow-up and continuity should be key features of good professional development. Among the best ways to get information about professional development opportunities is to have a membership in professional state and national art education associations. The Department of Public Instruction sponsors the ArtsWorld Teacher Institute each summer at the University of Wisconsin-Stevens Point for arts teachers and other educators interested in integrating any of the arts into their curriculum.



One of the most important qualities art teachers imbue in students is curiosity. The teacher, too, must become a learner. To ask questions, admit ignorance, be willing to explore, and to create an atmosphere where questions are as welcome as answers is an important goal of this guide. Professional development, in terms of reading books and articles, participating in computer networks, taking courses, expanding friendships and conversations, and traveling, become a part of a teacher's classroom strategy rather than something simply undertaken after school. Teachers must model learning, asking, inquiring, challenging, reading, and producing, side by side with students. A teacher's expressions of excitement, curiosity, exploration, and even frustration and perplexity, teach students more than ready answers and self-confident expertise.

Professional Involvement

Teachers need to remain professionally involved in organizations and activities within the profession. Professional organizations and activities provide opportunities to have the most current ideas and information necessary to provide the best possible educational opportunities for students.

Some of the most prominent organizations and activities for teachers in Wisconsin include the following:

Wisconsin Art Education Association (WAEA)

The Wisconsin Art Education Association is the state's professional organization for teachers and others involved in art education. WAEA is one of the most active and influential state arts education associations in the United States. Annual activities include WAEA's fall conference, spring conference, newsletter, Youth Art Month celebration, workshops, and awards program. Wisconsin has won national awards for many years for having one of the nations best art education advocacy programs for Youth Art Month.

WAEA's board includes representation from divisions for elementary, middle, and secondary schools; higher education; retired art educators; supervision; private schools; museums; and college students. There are also regional vice-presidents for the northwest, northeast, north central, southwest, southeast, and west central regions of the state. WAEA is unified with NAEA, so members join both the state and national organizations.

National Art Education Association (NAEA)

One of the best sources for information about art education is the National Art Education Association. Founded in 1947, NAEA is the largest professional art education association in the world. It is the prime resource for art education literature and issues for federal and state agencies, organizations, universi-

Warrington Colescott,
Night of the Artist, 1986
Color Intaglio
Collection of the Elvehjem Museum of Art
Gift of the Wisconsin Foundation of the Arts



ties, and school districts. Membership includes elementary and secondary teachers, artists and administrators, museum educators, arts council staff, and university professors from throughout the United States and 66 foreign countries. The NAEA's mission is to advance art education through professional development, service, advancement of knowledge, and leadership. The association publishes scholarly works, reference literature, research and curriculum materials, and has established national standards for elementary and secondary art programs and for teacher preparation programs. Its national conference features over 600 workshops, sessions, tours, and other events each year.

National Art Honor Society (NAHS)

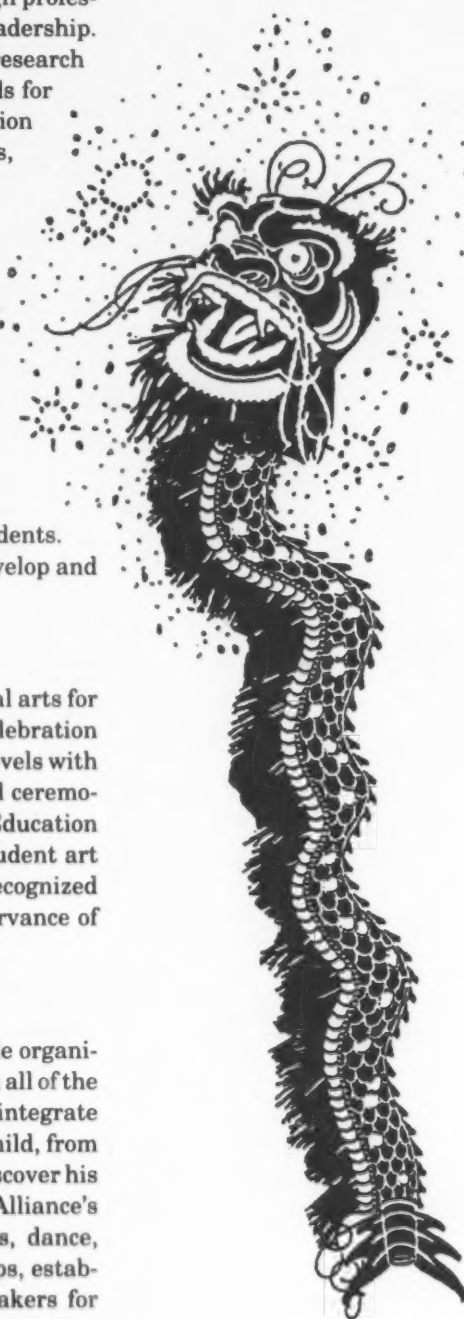
The National Art Honor Society was begun by the National Art Education Association in 1978 to inspire and recognize students in grades 10-12 who show an outstanding ability in art. NAHS was organized to help members attain their highest potential in the visual arts and to bring excellence in art education to the attention of schools and communities. A separate program for students in grades 7-9, the National Junior Art Honor Society (NJAHS), was developed in 1989 to generate interest in art programs and to inspire and recognize younger art students. NAEA has a booklet and other materials to help local districts develop and maintain NAHS and NJAHS programs.

Youth Art Month (YAM)

Youth Art Month is a national and state celebration of the visual arts for elementary and secondary students. Conceived in 1961, this celebration occurs annually during March at community, regional, and state levels with various exhibitions, featured artists, art competitions, and award ceremonies to recognize the role of the arts in schools. The Wisconsin Art Education Association coordinates YAM in Wisconsin and hosts a juried student art exhibit in the State Capitol Rotunda. Wisconsin is nationally recognized each year for having one of the best statewide programs in observance of Youth Art Month.

Wisconsin Alliance for Arts Education (WAAE)

The Wisconsin Alliance for Arts Education is the only statewide organization whose prime mission is to promote education in and through all of the arts for all children. WAAE was established in 1974 to help schools integrate the arts into every child's education. WAAE believes that every child, from elementary through high school, should have the opportunity to discover his or her talents and to discover the wonder of all the arts. The Alliance's mission includes advocacy in the schools for music, visual arts, dance, drama, and creative writing programs. WAAE conducts workshops, establishes coalitions among educational organizations, provides speakers for intereducational meetings and conferences, and supports arts education programs throughout the state. Its annual Summit Conference for Arts Education features national speakers and workshops on arts education issues and practices.





Wisconsin Arts Board (WAB)

The Wisconsin Arts Board is the state agency whose mission is to preserve and strengthen the state's diverse cultural resources by supporting artistic excellence and providing Wisconsin citizens with greater access to the arts. WAB was created by action of the legislature in 1973 to provide a state-sponsored mechanism to support and develop the arts in Wisconsin. WAB's funding programs provide grants to individual artists, nonprofit organizations, schools, and other institutions to create and present art to the public. One of WAB's programs most closely related to art teachers is the Artists in Education (AIE) Program. This program places an artist in a school or district from one week to a year to work with students, teachers, and the community. Costs for schools accepted in the program are shared by the school district and grants from the Wisconsin Arts Board.

Association for Supervision and Curriculum Development (ASCD)

One of the best sources for up-to-date information on curriculum development is the Association for Supervision and Curriculum Development. Anyone involved in the development or supervision of curriculum should consider becoming a member and reading ASCD's magazines and other publications. ASCD also sponsors several workshops during the year on current topics in curriculum development.

Museums

The National Art Education Association and Wisconsin Art Education Association include representation of museum educators on their boards. Museums have education programs for students and work with teachers to develop partnerships between the schools and museums. These programs are often offered both in the museums and in the schools. The National Gallery of Art in Washington, D.C., for example, is continually exploring ways to make its collection available to everyone, no matter how far away they may live. They maintain a free lending slide collection, and extension programs that include color slide programs, films, videocassettes, and videodiscs, often with accompanying audiocassettes, texts, study prints and posters. The national organization for museums is the American Association of Museums.

Program Standards

The National Art Education Association's publication *Purposes, Principles, and Standards for School Art Programs* outlines program standards for art in the areas of organization; curriculum development; personnel; time and scheduling; facilities; materials, equipment, and resources; and budget. The NAEA also has a program standards award for school districts that meet all of the NAEA standards. A nomination form and checklist are included in the publication.

Program standards in art are built on some basic assumptions that include the following:

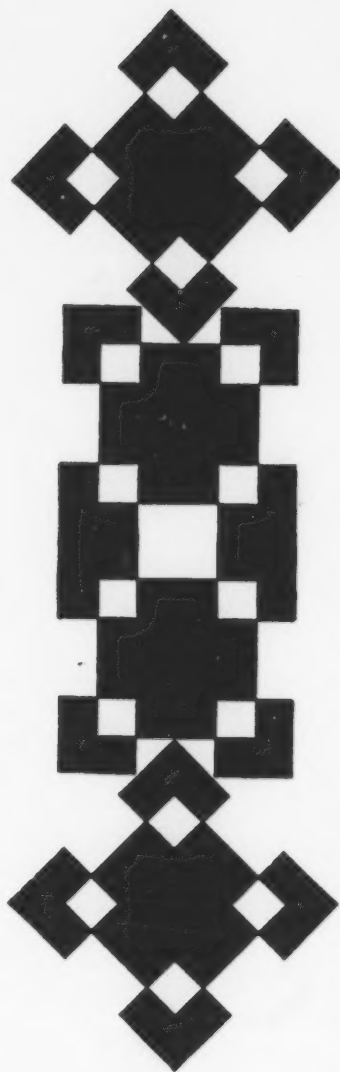
- The most important contributions of art to education must come from the visual and aesthetic ways of knowing unique to art.
- Art is a complex and multifaceted way of knowing about the world that relates to experiences in the home, community, school, world of work, and the environment.
- Efforts to integrate the visual art curriculum with other subjects must recognize and foster the essential nature of visual-spatial and aesthetic intelligences.
- Art education should nurture the development of all students as unique individuals and promote the appreciation of all cultures.
- The nature of art requires that curriculum plans be flexible enough to promote individualization and open-ended enough to foster authentic inquiry.
- The art education curriculum should use the community as a resource, including the natural and built environment; history, traditions, and current events; organizations, agencies and institutions; and people, values, and patterns of life.
- Supplementary programs such as museum trips, visiting artists, volunteer programs, and special events cannot be used as a replacement for regular instruction in art as an integral part of the school curriculum.
- The art program should be a rigorous field of study nurturing perceptual, imaginative, formative, expressive, and communicative aspects of visual-spatial and aesthetic intelligences.

Art Supervisors

To ensure a quality art education program, the staff of a district's central office should include a director or supervisor of art education. This person should have a broad knowledge of philosophies, theories, current trends, methodologies, and materials essential to continual development, support, and maintenance of a quality arts education program. Some key areas an art supervisor can coordinate for the district include curriculum development, professional staff development, scheduling, facilities planning, budgeting, instructional planning, and public relations. The National Art Education Association has an anthology of writing about art supervision entitled *Supervision and Administration: Programs, Positions, and Perspectives* (Mills, 1992).

Facilities Standards

The National Art Education Association's *Design Standards for School Art Facilities* outlines facilities requirements for elementary, middle-level, and high school art programs. These standards describe requirements for space, location, lighting, floors and walls, acoustics, sinks, security, accessibility, safety, and technology. Art programs have special facility requirements for instruction in photography, ceramics, computers, two-dimensional media, three-dimensional media, and multimedia. Safety, workspace, and storage are key considerations for art programs.



Some NAEA guidelines for art programs include

- Class sizes should be no more than 28 students at the elementary level, 24 at the junior/middle level, and 20 at the high school level.
- There should be one art room per 500 students in a school.
- There should be 55 square feet of work space per student in an art room (1,540 square feet for 28 students).
- The art room should have a studio-like appearance appropriate to the media.
- Ground floor locations with outside access for material delivery and instruction are preferable.
- Sinks and clean-up areas must accommodate a whole class in a short period of time.
- Enclosed storage must accommodate supplies for the entire art program (400 square feet).
- Short-term, in-class storage must accommodate work-in-progress by all students in the program.
- Work spaces must allow for separation of wet/dry, clean/messy projects at the same time.
- Two-dimensional and three-dimensional display areas are necessary for student work and instructional materials.
- Flexible lighting, including natural light, should be provided for instructional use.
- Walls with neutral coloring and display capability should be provided where ever possible.
- Rooms should have a chalkboard, projection screen, and room darkening devices.
- More electrical outlets are often required than in a regular classroom.
- Special ventilation must be provided for some art media.
- A separate kiln room is recommended for safety, ventilation, and heat control (45 square feet).
- Photography instruction requires space for developing, printing, and finishing pictures (340 square feet).
- Computer graphics instruction requires space and equipment protected from dust comparable to computer facilities provided for word processing and mathematics.
- A teacher's office should be provided (120 square feet).
- Art teachers should be consulted about special needs for any construction or renovation of art facilities. Equipment should be sized to the individuals using the room. A well-equipped high school room may be inappropriate for kindergartners.
- Exploring the design of art rooms and school facilities in general should be part of design instruction in art classes.

Health and Safety

Artists are finding that many materials used in the past were harmful to their health and have begun using substitute materials that are less hazardous. With young people in school settings, health and safety measures must be even more stringent. Charles Qualley's book *Safety in the Artroom* is a good source for information.

A school should have emergency procedures that everyone is familiar with and which are reviewed regularly. Teachers and other staff members should know how to contact a nurse, administrator, doctor, or hospital in a variety of situations. They should know the location of emergency supplies and how to use them. The school's emergency plan should include procedures to prevent and treat damage to eyes, hands, feet, or other parts of the body; ingestion of toxic materials; exposure of skin or eyes to toxic materials or fire; respiratory damage; and a variety of other potential health and safety hazards.

Responsible manufacturers are providing better labeling for products and developing nontoxic substitutes for hazardous materials. Information on the safe use and hazards of art materials in educational settings can be obtained from the Center for Occupational Hazards in New York and the Occupational Safety and Health Administration (OSHA) in Washington, D.C. The National Art Education Association's *Design Standards for School Art Facilities* has a list of resources on information pertaining to health and safety issues in the arts.

Instructional Materials

Art Curricula

Several approaches to art instruction, especially at the elementary level, are available commercially. Each has elements of value to art instruction but should be reviewed carefully to determine their strengths and weaknesses and appropriateness to the local district's art program. Prominent examples of companies and available art curriculum materials include Coronado's *Art in Action*, developed by Guy Hubbard; Davis Publications' *Adventures in Art* and *Discover Art*, developed by Laura Chapman; Dale Seymour Publications' *The Spectra Program: Learning to Look and Create*, developed by Kay Alexander and Michael Day; Glencoe Publication's *ART TALK*, developed by Rosalind Ragans, and *Art in Focus*, by Gene Mittler; and Garrard Publishing Company's *Understanding and Creating Art*, developed by Goldstein, Saunders, Kowalchuk, and Katz.

Art Textbooks

Wisconsin is not a textbook adoption state, so particular texts are not mandated or recommended at the state level. Most qualified art teachers choose not to rely on a single text for daily instruction, but some good materials can be used as supplementary resources. Students should be provided with one or more text resources to allow them to read about the ideas and information in the course of study. Learning is reinforced when students are provided with several ways to gain information and ideas. Some students learn best by reading about the arts, and all students learn better when information and ideas are presented in a variety of formats. There are many good books about the ceramic process, for example, that should be available to students working with clay. A couple of good art

history texts written for school age students should be available for reading and reference. Textbooks can be good general sources for reproductions of works of art and information about the world of art.

Trade Books

A general trend is developing in schools to move away from standardized texts in favor of what are sometimes referred to as trade books—regular books people obtain in bookstores and libraries. The writing in trade books is often better and more interesting to readers than that typically found in textbooks. Classrooms and libraries should steadily acquire a good selection of books on the visual arts over time. Some attention should be paid to developing a balanced collection that includes the studio arts, design arts, art and society, visual learning, art history, art criticism, aesthetics, and art production.

Supplementary Materials

Resources for art programs should also include newspapers, magazines, reproductions, slides, videodiscs, videos, films, and other materials on and about the visual arts. These materials can be found as part of materials for the general public and in materials designed for specific interest areas in the arts. General bookstores and libraries usually have several separate sections relating to areas of the arts such as architecture, fine art, commercial art, photography, film, philosophy of art, and art theory. Almost every area of the visual arts has a professional organization with a national magazine and a good selection of publications. Art supply stores often carry magazines and books on art and most museum gifts shops have exhibition catalogs, postcards, posters, slides, magazines, and books about art. In 1993, the National Gallery of Art distributed its videodisc *American Art from the National Gallery of Art* to schools and organizations across the country. A variety of videodiscs, including 6,000 works from the Louvre, are available from the Voyager Company (see resources). Major suppliers of arts and education materials provide a range of resource materials in their catalogs. Prominent art materials suppliers in Wisconsin include NASCO of Fort Atkinson and Sax Arts and Crafts in New Berlin. The Program for Art on Film maintains the Art on Film Database to help teachers find films and videos on any topic. For a small fee, the program will search any topic and send annotated listings, with a synopsis, production credits, distributors, and film awards, on more than 18,000 films and videos on the visual arts from more than 70 countries. The Art on Film Database is a joint project of The Metropolitan Museum of Art and the J. Paul Getty Trust.

Magazines

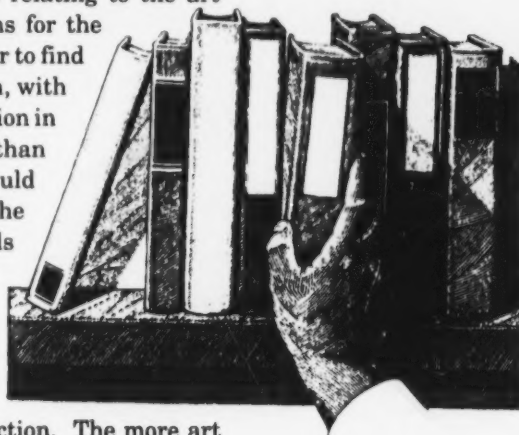
Magazines with information about the arts are so numerous that it would be too cumbersome to include a comprehensive list here. But, for illustrative purposes, some prominent examples include *Art Forum*, *Art Education*, *ArtNews*, *Arts and Activities*, *Ceramics Monthly*, *Cinefex*, *Graphis*, *Lighting Dimensions*, *Print*, *School Arts*, *Sign Craft*, *Theatre Design and Technology*, *Step-by-Step*, *Architectural Digest*, and *Wired*.

Magazines for general audiences such as *Time* and *Newsweek* also carry articles about art, design, architecture, the media, and a variety of arts related stories on a regular basis.

School Library/Media Center

Arts teachers often have a collection of arts resources in the classroom that are a combination of their personal collection and materials purchased out of their art budget. Arts teachers should also utilize their school library as a source for materials about the arts. Materials relating to the art program should be a regular part of new acquisitions for the school library. It is the responsibility of the arts teacher to find out about good resources and to formally request them, with all pertinent information, in a timely manner for inclusion in the library acquisition requests. Librarians are more than willing to help put such requests together, but they should not be expected to know what is most appropriate for the art program. It is not likely that all requested materials can be obtained at once, so it is important to update and resubmit requests on a regular basis. Librarians are willing to consider such requests within the limits of their budgets and the perceived value to students.

Arts students and teachers should utilize the library on an ongoing basis as a part of regular instruction. The more art students and teachers use library materials, the better the chances are of having new materials added to the collection on a regular basis.

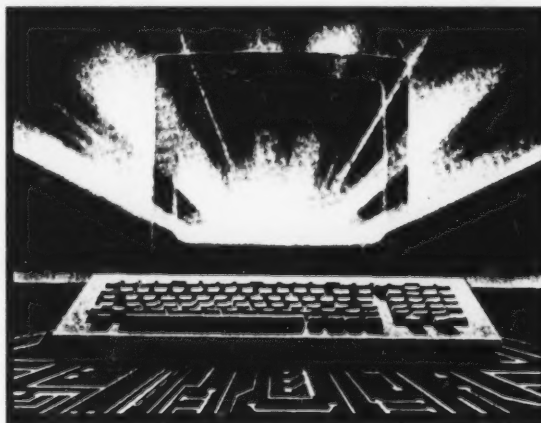


Computers in the Art Program

It is predicted that by the year 2000, 75 percent of the American workforce will be in service and information industries. These jobs often require the use of computer technology. Since this technology is continually changing, computer literacy is based not so much on specific computer skills as on a positive attitude and openness to the use of technology.

Computers have made a tremendous impact on graphic design and other design fields through the development of desktop publishing, computer-assisted design and manufacturing (CAD-CAM), rendering and painting programs, two-dimension and three-dimensional modeling, animation, and multimedia applications. The arts curriculum should include a broad-based computer and technology literacy program.

A computer component, like all other areas of the curriculum, is not dependent solely on the studio approach. If a school does not have adequate computer equipment for full studio applications for all students, a great deal of groundwork still needs to be laid beginning at the earliest levels. A student will encounter terms such as



kerning, justification, font, palatino, line spacing, and color separation in a desktop publishing program, but the student should learn the meaning, significance, and application of these terms before sitting down at the computer. Similarly, students can and should learn a great deal about shading, rendering, reflection, and perspective by working with conventional media before trying to apply them in a three-dimensional computer modeling program. They should have opportunities to see and analyze examples of computer applications in art. Students with these prior experiences will be able to learn computer applications much more easily and quickly.

Community Resources

A look at the yellow pages in a phone book will give one a quick idea of the variety of resources available in a local community. These can include resources as diverse as advertising agencies, architects, art appraisers, art galleries, art associations, art supply stores, commercial artists, flower arrangers, graphic designers, jewelry designers, landscape architects, lighting designers, museums, multimedia producers, publishers, sign painters, printing companies, filmmakers, video producers, photographers, and zoning consultants. People who work in these fields often have advanced training in some area of the arts and can be useful resources for school art programs. They can also be good sources for magazines, books, materials, and other resources in their field.

Many community resources are not readily identified and often overlooked. Some small communities in more remote parts of the state, where there is not a museum nearby, sometimes overlook the rich folk arts traditions to be found in the area. The Wisconsin Arts Board's Folk Arts Coordinator is a good resource for information about local arts resources.

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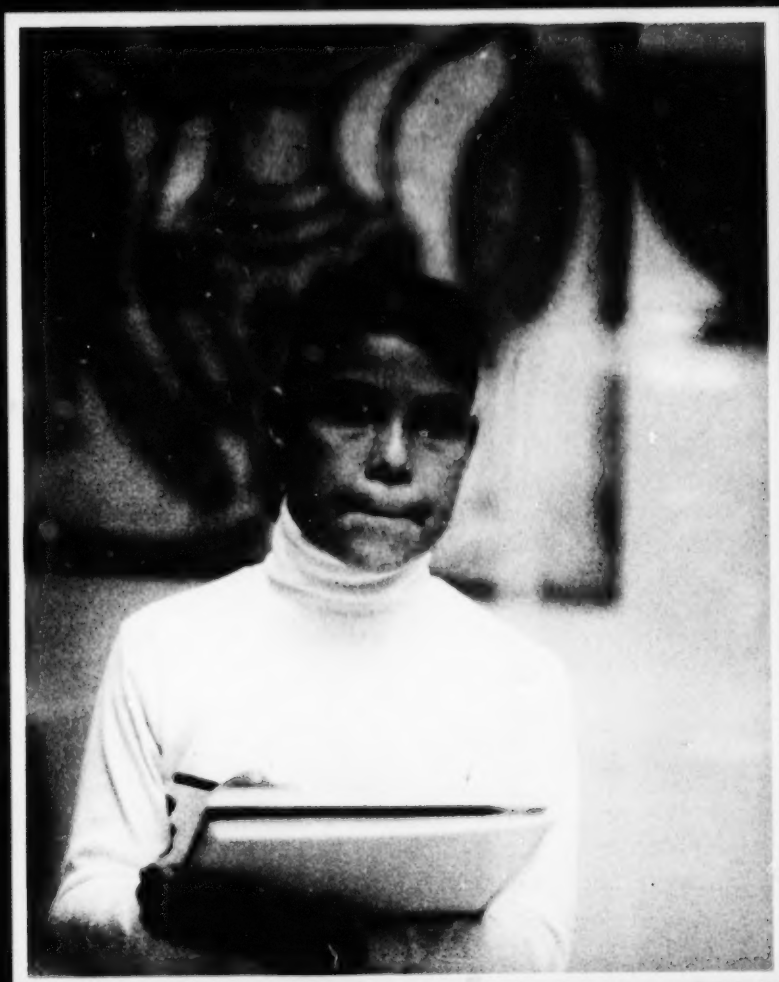
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The Apple of My Eye
by David L. Smith

12



BEST COPY AVAILABLE

Licensure—Standard (a)

Each school board shall:

(a) Ensure that every teacher, supervisor, administrator and professional staff member holds a certificate, license or permit to teach issued by the department before entering on duties of such position.

Overview

Standard (a), the licensure standard, requires school districts to certify annually that teachers, supervisors, administrators, and other professional staff members are licensed by DPI for the positions to which they are assigned.

Licensing of teachers and other professional staff members is based on the assumption that the quality of education students receive is largely dependent on the competence of the people who staff the schools. The licensing system provides a means of assuring that school staff members have the educational preparation necessary to perform effectively.

With the discontinuation of the life certificate for all school personnel in Wisconsin, the renewal of licenses on a periodic basis provides an opportunity to ensure that professional staff members maintain and enhance their effectiveness by completing a continuing professional education requirement. This involves 6 semester credits at an accredited college or university or the equivalent of 180 clock hours of preapproved professional activities every five years.

School districts are expected to develop a system to ensure that all professional staff members are appropriately licensed by DPI before undertaking duties in the assigned position.

DPI will assist school districts in meeting the professional staff member license requirement by providing consulting services to license applicants and to school districts. The DPI publishes a list of preapproved professional activities. In addition, each week DPI provides a list of school district vacancies to Wisconsin colleges and universities offering teacher training so that administrators and placement officials can refer graduates to those school districts; also, a daily listing of applicants seeking specific positions is sent to school districts with vacancies in those subject fields. Through the DPI annual audit of school staff, districts are assisted in correcting any discrepancies between assignment and certification of professional staff members.

Administrative Rule

PI 8.01(2)(a). Each school district board shall certify annually that every teacher, supervisor, administrator, and other professional staff member has been issued a valid certificate, license or permit by the department for the position for which he/she is employed before entering on duties for such position and that a copy of the valid certificate, license, or permit is on file in the district.

Definition of Terms

Licensed. Holding a valid license issued by the department as required under ss. 118.19 and 121.02 (1) (a), Stats. (from PI 8.001(8), Wis. Admin. Code).

Meeting Standard (a)

Requirement	Example of Documentation
Certify annually that every teacher, supervisor, administrator, or other professional staff member has been issued a valid certificate, license, or permit issued by DPI for the assigned position before assuming the duties of the position.	• The School District Staff and Personnel Report (DPI Form No. 1202). • List of all district employees and their assignments. • List of all substitute teachers and copies of their licenses.

Health, Physical Education, Art, and Music—Standard (j)

Each school board shall:

(j) Ensure that instruction in elementary and high schools in health, physical education, art and music is provided by qualified teachers.

Overview

Standard (j) requires that health, physical education, art, and music be provided in accordance with a written comprehensive curriculum; however, school districts will find that by meeting standards (k), (L), and (a), they are in compliance with other standards.

Art

The arts are and have been an essential part of human history, knowledge, and achievements. They are a means of understanding and expressing the ideas that matter most to individuals and society. Evidence shows that loss of environmental quality can result in social problems. However, philosophical and scientific studies indicate that art education provides a basis for knowing and understanding the visual environment.

Therefore, it is essential that art education be an integral part of elementary and secondary education for all students.

As part of the general learning process, art balances the curriculum to help develop the whole intellect. Art education fosters perceptual awareness, visual creativity, aesthetic valuing, understanding of past and present cultures, life-coping skills, aesthetic literacy, communication skills, and experiences in understanding one's self.

Administrative Rule

PI 8.01(2)(j). The school district board shall provide instruction in health, physical education, art and music as follows:

1. Health instruction shall be provided in accordance with a written comprehensive health education curriculum which includes the curricular areas defined in ss. 115.35 and 118.01(2), Stats. A professional staff member shall be designated as coordinator of health education. Health education in grades kindergarten through 6 shall be under the direction of a licensed health teacher. In grades 7 through 12 health education shall be conducted by or under the direction of a licensed health teacher and shall include one structured course in health taught by a licensed health teacher.

2. Physical education instruction shall be provided in accordance with a developmental, sequential, comprehensive physical education curriculum and program of instruction for all pupils. Instruction in grades kindergarten through 6 shall be provided at least 3 times weekly, except that days on which special activities are conducted may be exempt; and shall be conducted by or under the direction of a licensed physical education teacher. Pupils in grade 6 may be scheduled in accordance with the criteria for scheduling grades 7 through 12 if the pupils are attending a school that includes any of those grades. All pupils in grades 7

through 12 shall participate in the instructional program of physical education taught by a licensed physical education teacher, except that in senior high schools one year or the equivalent may be optional to pupils.

3. Art instruction shall be provided in accordance with a written comprehensive art curriculum which is based on concepts developed through sensory awareness, aesthetic discrimination and skill development in the creation of art and the knowledge of human art heritage. Art instruction shall be provided for all pupils in grades kindergarten through 6 and shall be performed by or under the direction of a licensed art teacher. Art instruction shall be available to all pupils in grades 7 through 12 and shall be taught by a licensed art teacher.

4. Music instruction shall be provided in accordance with a written comprehensive music curriculum including developmental experiences involving singing, playing instruments, listening, movement, creative expression, and music reading. Music instruction shall be provided for all pupils in grades kindergarten through 6 and shall be performed by or under the direction of a licensed music teacher. Music instruction including general music, vocal music and instrumental music shall be available to all pupils in grades 7 through 12 and shall be taught by a licensed music teacher.

Definition of Terms

Access. An opportunity to study through school district course offerings, independent study, cooperative educational service agencies, or cooperative arrangements between school district boards under s. 66.30, Stats., and postsecondary education institutions (from PI 8.001, Wis. Admin. Code).

Meeting Standard (j)

Requirement	Example of Documentation
Written comprehensive curriculum for all.	• Achieved through standard (k); s.118.01(2) and s. 115.35 for health curriculum must be included.
Instruction in all areas in grades K-6 shall be provided by or under supervision of a subject-area teacher.	• Achieved through standards (L) and (a). • Description of how supervision occurs. • Art, music, physical education, and health teachers' schedules.
Physical education meets three times per week at a minimum.	• Elementary teacher's class schedule showing physical education class times.
Instruction in grades 7-12 shall be available in art and music and taught by an art and music teacher.	• Achieved through standards (L) and (a). • Art and music teachers' schedules.
Instruction in grades 7-12 in health shall include at least one structured course by a health teacher.	• Achieved through standards (L) and (a). • Health teacher's schedule.
Instruction in grades 7-12 in physical education shall be required of all students and taught by a physical education teacher, except that one year may be elective in senior high schools.	• Achieved through standards (L) and (a). • Physical education teacher's schedule. • Middle and high school student handbook.

Curriculum—Standard (k)

Each school board shall:

(k) By September 1, 1988, develop a written, sequential curriculum plan in at least 3 of the following subject areas: reading, language arts, mathematics, social studies, science, health, computer literacy, environmental education, vocational education, physical education, art and music. The plan shall specify objectives, course content and resources and shall include a program evaluation method.

By September 1, 1989, develop a written, sequential curriculum plan in at least 3 additional subject areas specified in subd. 1.

By September 1, 1990, develop a written, sequential curriculum plan in all of the remaining subject areas specified in subd. 1.

Overview

Standard (k) requires districts to develop, implement, and monitor curriculum plans for 12 subject areas. Areas to be covered include reading, language arts, mathematics, social studies, science, health, computer literacy, environmental education, physical education, art, and music. A provision of standard (L) has added foreign language to the list of curriculum documents to be written. An additional curriculum plan in vocational education is to be developed for grades 7 through 12. Computer literacy and environmental education are to be integrated throughout all plans where appropriate.

Curriculum development is important for a number of reasons:

- The need for continuous instructional leadership which is future oriented.
- The need to restructure a subject area in the light of recent research findings or the emerging needs of students.
- Recent local, state, or federal statutory changes such as the passage of graduation requirements or participation in a competency-based testing program.
- The demands for excellence affecting local curriculum.
- The impact of educational technology on local curriculum.
- The need to incorporate equity concepts and multicultural, sex-fair course objectives into a curriculum.

The school and district mission, especially as it relates to students, can be articulated through curriculum expectations. This may be accomplished through a general statement of purpose that relates all curriculum areas.

An organized district process of studying, reviewing, developing, implementing, and updating curriculum plans helps educators representing the various subject areas to examine over a period of time the appropriateness of the content of each curriculum plan and the effectiveness of instruction in each area.

If program and student objectives have been attained, no unusual curriculum revision may be indicated. However, curriculum development never should stop completely; even the

best of curriculums can profit from continuous examination. New knowledge, improved techniques, changing philosophies, and local priorities make curriculum development a never-ending challenge.

DPI has published guides to curriculum development to provide support and assistance to educators responsible for revising or developing curriculum to meet local needs and aspirations. This includes providing models for improving curriculum and instruction; criteria for content selection; strategies for K-12 articulation, implementation, and evaluation of curriculum; statements of curriculum content for educators, school boards, and the community; and guidelines for preservice and inservice teacher education programs.

Administrative Rule

PI 8.01(2)(k). 2. Each school district board shall develop, adopt and implement a written school district curriculum plan which includes the following:

a. Kindergarten through grade 12 sequential curriculum plan in each of the following subject areas: reading, language arts, mathematics, social studies, science, health, computer literacy, environmental education, physical education, art and music.

b. A grade 7 through 12 sequential curriculum plan in vocational education.

3. Each sequential curriculum plan shall specify objectives, course sequence, course content, resources, an objective process of determining whether pupils attain the specified objectives, and an allocation of instructional time by week, semester and school term. The school district board shall establish in the school district curriculum plan the allocation of instructional time, by week, semester and school term, among all subject areas.

4. Each sequential curriculum plan shall include a program evaluation method which provides that components of the sequential curriculum plan shall be monitored continuously. The overall program evaluation method shall be reviewed at least once every 5 years and revised as appropriate to ensure that pupils meet the curriculum objectives.

5. The school district curriculum plan shall be consistent with the approved education for employment program under ch. PI 26.

6. The school district board shall develop sequential curriculum plans in at least 3 of the subject areas specified in subd. 2 by September 1, 1988; in at least 3 more of the subject areas specified in subd. 2 by September 2, 1989; and in all of the remaining subject areas specified in subd. 2 by September 1, 1990. The computer literacy and environmental education curriculum plans shall be developed as follows:

a. Computer literacy objectives and activities shall be integrated into the kindergarten through grade 12 sequential curriculum plans.

b. Environmental education objectives and activities shall be integrated into the kindergarten through grade 12 sequential curriculum plans, with the greatest emphasis in art, health, science and social studies education.

Definition of Terms

Computer literacy. The ability to use computer programs to assist learning, handling information and problem solving, and the ability to make informed judgments concerning social and ethical issues involving computers and information systems (from PI 8.01 (2)(k)1.a., Wis. Admin. Code).

School district curriculum plan. The composite of the sequential curriculum plans (from PI 8.01(2)(k)1.b., Wis. Admin. Code).

Sequential curriculum plan. An organized set of learning experiences that build upon previously acquired knowledge and skills (from PI 8.01(2)(k)1.c., Wis. Admin. Code).

Meeting Standard (k)

Requirement	Example of Documentation
Write a school district curriculum plan.	• Written plan for curriculum development including K-12 sequential plans in reading, science, language arts, mathematics, social studies, health, physical education, art, music, and vocational education (grades 7-12), with plan for integrating computer literacy and environmental education. These plans may be integrated or combined (for instance reading and language arts) depending on district instructional philosophy.
Develop a program evaluation method.	• Description of method used for program evaluation including process for continuous monitoring.
Write components of sequential curriculum plans.	• Curriculum plans specify goals, objectives, sequence, course content, resources, student evaluation methods and instructional time for each curricular area.
Monitor the curriculum plan.	• Plan is reviewed at least every five years and revised as appropriate continuously to ensure that pupils meet objectives.
Specify time allocation.	• Time allocations are specified for each subject by week, semester, and school term. (For example, mathematics 250 minutes per week, health 75 minutes per week, and so forth.)
Integrate computer literacy and environmental education into the curriculum plan.	• Computer literacy is integrated in appropriate curricular areas. Environmental education is integrated as well, with emphasis in art, health, science, and social studies.
Have a foreign language curriculum by 1994.	• Plan for development or integration of foreign language curriculum for at least grades 7-12 which is required under standard (L).

Instruction—Standard (L)

Each school board shall:

(L) 1. In the elementary grades, provide regular instruction in reading, language arts, social studies, mathematics, science, health, physical education, art and music.

2. In grades 5 to 8, provide regular instruction in language arts, social studies, mathematics, science, health, physical education, art and music. The school board shall also provide pupils with an introduction to career exploration and planning.

3. In grades 9 to 12, provide access to an educational program that enables pupils each year to study English, social studies, mathematics, science, vocational education, foreign language, physical education, art and music. In this subdivision, "access" means an opportunity to study through school district course offerings, independent study, cooperative educational service agencies or cooperative arrangements between school boards and postsecondary institutions.

4. Beginning September 1, 1991, as part of the social studies curriculum, include instruction in the history, culture and tribal sovereignty of the federally recognized American Indian tribes and bands located in this state at least twice in the elementary grades and at least once in the high school grades.

5. Provide regular instruction in foreign language in grades 7 and 8 beginning in the 1994-95 school year.

Overview

Research on effective schools identifies several elements that exist and interact in schools that effectively help students to learn. One of the characteristics of effective schools is providing pupils an opportunity to learn through carefully planned and implemented lessons. Concepts such as "time on task" and "academic engaged time" refer to the amount of time devoted to instruction and learning.

Standard (L) defines the subjects that must be taught on a regular basis in elementary, middle, and high schools. It links instructional time to the curriculum plan required in Standard (k). This standard is also linked to the education for employment Standard (m) through the career exploration and planning requirement. The basic rationale for Standard (L) is to ensure that some minimum level of instruction occurs in all of the identified curriculum areas so that students have an opportunity to learn.

The requirement for access to specified programs at the high school is to allow students an opportunity to study and master specific skill areas that later may be essential to their success in continued education or in employment. This standard recognizes the difficulty that small or economically constrained districts may have in providing instruction in all areas, and it allows for cooperative compliance.

DPI's Bureau for School Improvement can assist school districts by responding to questions about regular instruction.

Administrative Rule

PI 8.01(2)(L). Each school district board shall provide instruction as follows:

1. In grades kindergarten through 4, regular instruction shall be provided in reading, language arts, social studies, mathematics, science, health, physical education, art and music. In this subdivision, "regular instruction" means instruction each week for the entire school term in sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the curriculum plans developed and adopted under par. (k).

2. In grades kindergarten through 8, include instruction in the social studies curriculum in the history, culture and tribal sovereignty of the federally recognized American Indian tribes and bands located in the state in at least 2 grade levels and in at least one grade level in grades 9 through 12 beginning September 1, 1991.

3. In grades 5 through 8, regular instruction shall be provided in reading, language arts, social studies, mathematics, science, physical education, health, art and music. In this subdivision, "regular instruction" means instruction each week for the entire school term in sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the curriculum plans developed and adopted under par. (k), except that in middle level formats which offer or require a variety of exploratory experiences for pupils, such as foreign language, business education, vocational agriculture, technology education, home economics education and marketing education, regular instruction in health, art and general music may be provided as follows:

- a. In grades 5 and 6, each week for the entire school term or the equivalent in instructional time and course content, and in sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the curriculum plans developed and adopted under par. (k).

- b. In grades 7 and 8, in sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the curriculum plans developed and adopted under par. (k).

4. In grades 7 and 8, provide regular instruction in foreign language beginning in the 1994-95 school year. In this subdivision regular instruction in foreign language means access to instruction in sufficient frequency and length to achieve the objectives and time allocations of a written, sequential curriculum plan in foreign language. The foreign language curriculum shall follow the requirements of other curriculum documents required under par. (k).

5. An introduction to career exploration and planning, through a one semester course or the equivalent in instructional time and course content, shall be integrated within grades 5 through 8.

6. In grades 9 through 12, access shall be provided, without charge for tuition, to an educational program which enables pupils each year to study English, social studies, mathematics, science, vocational education, foreign language, physical education, art and music. The school district board shall make all courses as widely available to all pupils as possible, however an individual pupil's scheduling conflict does not constitute denial of access to a course.

Definition of Terms

Access. The opportunity to study through school district course offerings, independent study, cooperative educational service agencies, or cooperative arrangements between school district boards under s. 66.30, Stats., and postsecondary education institutions (from PI 8.001(1), Wis. Admin. Code).

Career exploration and planning. The process by which elementary and secondary pupils identify and evaluate life and work choices, explore and plan career goals, and acquire realistic life and work decision-making skills (from PI 8.001(2), Wis. Admin. Code).

Regular instruction. Instruction each week for the entire school term in sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the curriculum plans developed and adopted under par. (k) (from PI 8.01(2)(L)1. and 3.a. Wis. Admin. Code).

or

Instruction provided in sufficient frequency and length to achieve the objectives and allocation of instructional time identified in the curriculum plans developed and adopted under Standard (k) (from PI 8.01(2)(L)3.b., Wis. Admin. Code).

Meeting Standard (L)

Requirement	Example of Documentation
Identify the amount of time each week that is allocated to each of the following subjects: a. For grades K-6*: — reading — language arts — social studies — mathematics — science - health — physical education — art — music b. For grades 7 and 8*: — reading — language arts — social studies — mathematics — science — physical education c. For grades 7 and 8 (not necessarily every week): — health — art — music d. For grades 5 through 8, career exploration and planning, through a one-semester course or the equivalent in instructional time and course content.	• Time for each subject by week, semester, and school term. Elementary teachers' weekly schedules, middle level unit assignments or high school time assignments for classes are evidence of regular instruction. • Curriculum document(s) identifying career exploration and planning.
Provide all students in grades 9 through 12 access each year to the following courses: — English — social studies — mathematics — science — vocational education — foreign languages — physical education — art — music	• List of course titles.

*Grades 5-8 in a middle school format may arrange instruction consistent with the language in administrative rule PI 8.01(2)(L).

PI 4.19, Wisconsin Administrative Code

PI 4.19 Art. A professional education program leading to licensure in art shall meet the following standards:

(1) The program shall provide a study to develop knowledge and skills pertaining to the content of the visual arts disciplines and the following:

(a) Basic concepts and skills of studio art foundations involving a balanced program of both two-dimensional and three-dimensional creative problem solving areas including drawing, design, painting, sculpture, printmaking, graphic communication, film and photography, ceramics, art metals, fibers, and related media and processes.

(b) Basic knowledge and understanding of art history, aesthetic theory, and art criticism, involving study of the development of past and contemporary art forms, contending theories of art, and critical methodologies of art.

(c) Advanced knowledge and skill in selected studio areas and in selected art history or theory areas.

(d) Knowledge and appreciation of at least one discipline related to the visual arts including music, drama, dance, or literature.

(2) The program shall provide instruction pertaining to humanistic and behavioral studies including:

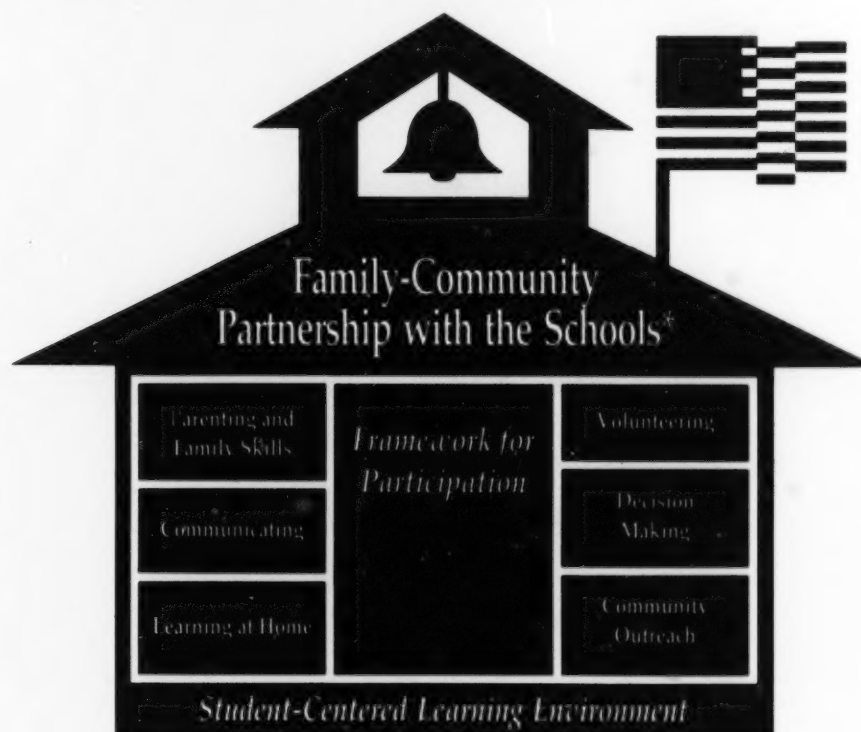
(a) Philosophical bases related to the human potential for creative expression through the arts.

(b) Psychological bases involving an understanding of individual development and the manner in which aesthetic experience can affect the development of the human personality including application to gifted students and to handicapped students.

(c) Sociological or anthropological bases of the aesthetic response recorded in various cultures and subcultures.

History: Cr. Register, April, 1986, No. 364, eff. 5-1-86; renum. from PI 4.17, Register, February, 1987, No. 374, eff. 3-1-87; am. (intro.), Register, April, 1988, No. 388, eff. 5-1-88.

Family-Community Partnerships with the Schools*



SIX TYPES OF FAMILY—COMMUNITY PARTICIPATION

Parenting—Build on parenting strengths and help families improve parenting skills. Facilitate support systems and networks to enable families to effectively nurture their children.

Communicating—Design and implement effective two-way communication practices to reach families, both individually and collectively. These practices should ensure that families and school staff members communicate back and forth about their children.

Learning at Home—Provide for families and school staff members to work together in developing learning goals and offering opportunities for learning activities at home and in the community to meet the learning goals.

Volunteering—Recruit and organize volunteer participation from families and the community at-large.

Decision Making—Design governance structure through which parents are partners in policy decisions so that families have opportunities to give their opinions and to participate in decision making about school programs. Recruit families to act as advocates and decision makers and represent other parents and families.

Community Outreach—Establish partnerships with individuals and organizations in the community.

*Based on the research of Joyce Epstein, co-director, Center on Families, Communities, Schools & Children's Learning, Johns Hopkins University. Implementation through the League of Schools Reaching Out, Institute for Responsive Education, Boston.

GETTING IT DONE

Leadership—Who is in charge and has the authority to organize and assign tasks? One person should be accountable for the results.

Analysis—What are the needs and challenges? What results do you want? Develop a basis for your efforts.

Planning and Policy Development—What must be done? How? Who will do it? What is the time line? School board policy and district and school procedures may need to be developed.

Action/Implementation—With the ground-work laid, how much of the plan can you put in place? While the six types of family-community participation for schools are interrelated and important for a comprehensive approach, determine what is possible and practical at any given time. Don't delay doing something because the whole plan is not in place.

Evaluation—What worked? What didn't? What needs changing or fine tuning? Listen and learn from experiences.



Learning Together

A Checklist for Schools

Making Your Family-Community Partnership Work

Following are examples of practices and programs that schools and districts can use to encourage family and community support of children's learning. They are meant to be advisory and should be adapted to each school's or district's needs.

Parenting and Family Skills

- ☐ 1. We sponsor parent education and family learning workshops.
- ☐ 2. We ask families what types of workshops or informational events they would be interested in attending and what session times are most convenient for them.
- ☐ 3. We provide families with information on child development.
- ☐ 4. We lend families books and tapes on parenting and parent workshops.
- ☐ 5. We provide families with information about developing home conditions that support school learning.
- ☐ 6. We survey parents to determine their needs, assign staff members to help address those needs, and work to link parents with community resources.
- ☐ 7. We have a family resource center or help parents access other resource centers in the community.
- ☐ 8. We have support groups for families with special interests and needs.
- ☐ 9. We train staff members and support them in reaching out to all families.

Communicating

- ☐ 1. We have parent-teacher-student conferences to establish student learning goals for the year.
- ☐ 2. We listen to parents tell us about their children's strengths and how they learn.
- ☐ 3. We follow the "Rule of Seven": offering seven different ways that parents and community members can learn about what is happening in the school and comment on it.
- ☐ 4. Teachers have ready access to telephones to communicate with parents during or after the school day.
- ☐ 5. Staff members send home positive messages about students.
- ☐ 6. We make efforts to communicate with fathers.
- ☐ 7. Parents know the telephone numbers of school staff members and the times teachers are available to take phone calls from parents.
- ☐ 8. We involve families in student award and recognition events.

- ☐ 9. We encourage and make provisions for staff members to talk with parents about the child's progress several times each semester.
- ☐ 10. We communicate the school's mission and expectations for students to parents. The school has a homework hotline or other kind of telephone system.
- ☐ 11. We provide parents with structured ways to comment on the school's communications, for example, with mailed, phone, or take-home surveys.
- ☐ 12. We have staff members available to assist and support parents in their interactions with the school (i.e. home-school liaisons).
- ☐ 13. We send home communications about
 - ☐ student academic progress
 - ☐ meetings at school
 - ☐ how parents can be involved in student activities
 - ☐ PTA/PTO
 - ☐ student discipline
 - ☐ child development
 - ☐ the curriculum
 - ☐ how parents can be involved as volunteers
 - ☐ how parents can be involved in school governance
 - ☐ how parents can help with homework and encourage learning at home
 - ☐ community resources available to families
 - ☐ how parents can communicate with school staff
 - ☐ the school's philosophy of learning.

- ☐ 14. Staff members make home visits.
- ☐ 15. We directly speak to parents (does not include leaving messages on answering machines) if students are having academic difficulty or causing classroom disruptions **before** a crisis occurs.
- ☐ 16. We provide copies of school textbooks and publications about the school to the public library.

Learning at Home

- ☐ 1. We have a structured program to help parents assist their children with homework.
- ☐ 2. We offer learning activities and events for the whole family.
- ☐ 3. We invite parents to borrow resources from school libraries for themselves and their families.
- ☐ 4. We link parents with resources and activities in

the community that promote learning.

- ☐ 5. We give parents questionnaires they can use to evaluate their child's progress and provide feedback to teachers.
- ☐ 6. School staff and school communications help parents link home learning activities to learning in the classroom.

Volunteering

- ☐ 1. We encourage families and other community members to attend school events.
- ☐ 2. We offer youth service learning opportunities for students who want to volunteer in the community.
- ☐ 3. We help school staff learn how to work with parent and community volunteers.
- ☐ 4. We ask family members how they would like to participate as volunteers at their child's school or in the community.
- 5. We encourage family and community members to become involved as
 - ☐ participants in site-based management councils
 - ☐ presenters to students on careers and other topics
 - ☐ assistants with art shows, read-aloud events, theater workshops, book swaps, and other activities
 - ☐ tutors/mentors
 - ☐ chaperones on field trips and other class outings
 - ☐ instructional assistants in classrooms, libraries, and computer labs
 - ☐ non-instructional assistants
 - ☐ from-the-home contributors of baked goods, assembling materials, typing, etc.
- ☐ 6. We have a program to recognize school volunteers.
- ☐ 7. We offer volunteer opportunities for working and single parents.
- ☐ 8. We gather information about the level and frequency of family and community participation in school programs.

Governance and Advocacy

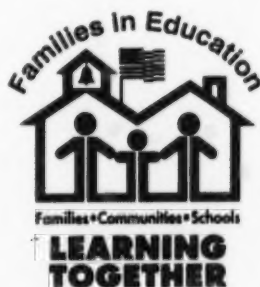
- ☐ 1. We encourage parents to attend school board meetings.
- ☐ 2. We assign staff members to help parents address concerns or complaints.

- ☐ 3. We invite staff and parent groups to meet collaboratively.
- ☐ 4. We help families advocate for each other.
- 5. We involve parents in
 - ☐ revising school and district curricula
 - ☐ planning orientation programs for new families
 - ☐ developing parenting skills programs
 - ☐ establishing membership for site-based councils
 - ☐ hiring staff members.

Community Outreach

- ☐ 1. We act as a source of information and referral about services available in the community for families.
- ☐ 2. We use a variety of strategies to reach out to adults, families, and children of all ages, races, and socioeconomic backgrounds in the community.
- ☐ 3. We encourage local civic and service groups to become involved in schools in a variety of ways such as mentoring students, volunteering, speaking to classes, and helping with fund-raising events.
- ☐ 4. We encourage staff and students to participate in youth service learning opportunities.
- ☐ 5. We open our school buildings for use by the community beyond regular school hours.
- ☐ 6. We work with the local chamber of commerce or business partnership council and public library to promote adult literacy.
- ☐ 7. We have a program with local businesses that enhances student work skills.
- ☐ 8. We widely publish and disseminate school board meeting notices, summaries, and board policies and agendas, and encourage the feedback and participation of community members.

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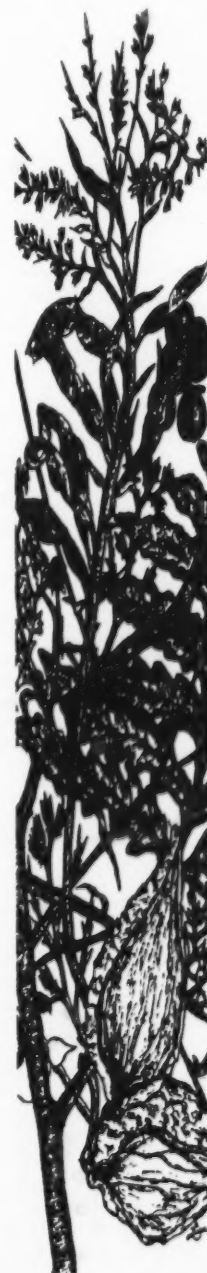
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Wisconsin Art Education Association
Membership
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Waunauke, WI 53597-8912

Wisconsin Arts Board
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Madison, WI 53703
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Wisconsin Center for Education Research
University of Wisconsin-Madison
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Madison, WI 53706

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Wisconsin Society of Architects
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Young Artists Workshop
St. Norbert College
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Aaron Bohrod, *Decorations*, 1958
 Oil on Board, 8 3/4" x 11 3/4"
 Collection of Madison Art Center
 Bequest of Julian Harris

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